

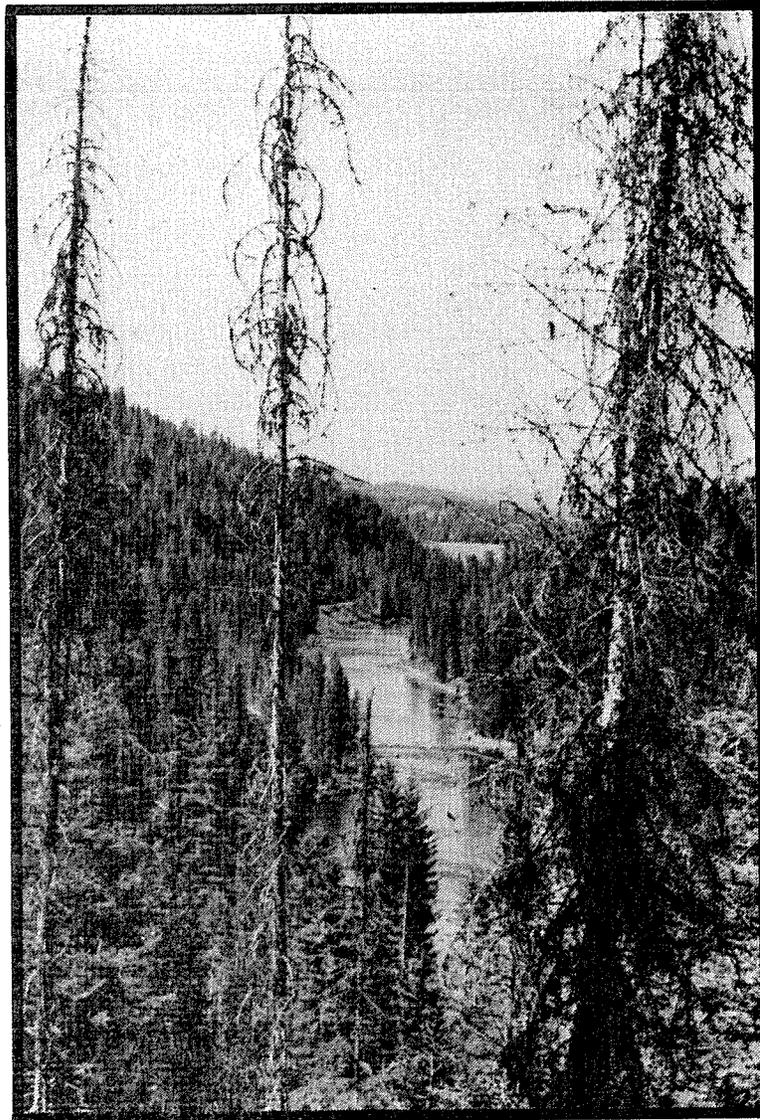


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**Division of
Environmental Quality**

SOCL
Idaho Water Quality Status Report and
**Water Quality
Bureau**

Idaho Water Quality Status Report and Nonpoint Source Assessment 1988



**Idaho
Department of Health and Welfare**

IDAHO WATER QUALITY STATUS REPORT AND NONPOINT SOURCE ASSESSMENT 1988



**Idaho Department of Health and Welfare
Division of Environmental Quality**

**(Second Printing)
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Numerous central office Bureau staff took part in transforming the data into a comprehensible water quality status report. Completion of this report would not have been possible without the contributions from these people. Their effort and cooperation is gratefully appreciated.

Cover Photo: Geoff Harvey

GLOSSARY

Aerobic: Air or free oxygen is present.

Agricultural activities: A category of nonpoint source pollution including but not limited to irrigated or non-irrigated crop production, specialty crop production (truck farming, orchards, etc.), pastureland, rangeland, feedlots, aquaculture, and animal holding areas.

Agricultural water supply: Waters which are suitable or intended to be made suitable for the irrigation of crops or as drinking water for livestock.

Alluvial aquifer: An aquifer made up of river deposited sediments such as gravels, sand, silt, and clay.

Alluvium: Unconsolidated sediments such as gravel, sand, silt or clay deposited by flowing rivers. Depending upon the location in the flood plain of the river, different sized sediments are deposited.

Anaerobic: Air or free oxygen is absent.

Anion: A negatively charged atom or molecule that is repelled by other negatively charged surfaces and attracted to positively charged surfaces.

Aquifer: Rock or sediment which is saturated with water and sufficiently permeable to transmit economic quantities of water to wells and springs.

Beneficial use: The reasonable and appropriate use of water for a purpose consistent with Idaho state laws and the best interest of the people. They include, but are not limited to, domestic water supplies, agricultural water supplies, wildlife habitat, and recreation on or in the water.

Benthic: Of the bottom of lakes, streams, or ponds.

Best management practice (BMP): A practice or combination of practices determined to be the most effective and practicable means of preventing or reducing the amount of pollution generated by nonpoint sources.

Biota: All plants and animals living in a given area.

Caliche: A hard, dense layer of calcium carbonate deposited in some soils in arid regions. This deposit is the result of evaporation of near-surface soil moisture.

Cold water biota: Waters which are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species which have optimal growing temperatures below 18° C.

Coliform: A bacterium from vertebrate intestines or bacteria resembling intestinal bacteria.

Construction: A category of nonpoint source pollution including but not limited to highway, road, or bridge construction, and land development.

Domestic water supply: Waters which are suitable or intended to be made suitable for drinking water supplies.

Eutrophic: A nutrient rich or fertile body of water.

Eutrophication: The natural process of lake aging by fertilization with nutrients. Cultural eutrophication refers to man-caused contributions to the eutrophication process.

Evaluated: A stream segment (or aquifer) assessment based on information *other than* site-specific water quality data. Examples include data on land use, location of nonpoint sources, predictive modeling, citizen complaints, and surveys by fisheries personnel. Perception and best professional judgement are also methods for "evaluated" conditions. Assessments based on chemical or biological data that is older than five years is also considered "evaluated", not monitored.

Feedback loop: A process of nonpoint source management based on implementation of best management practices (BMPs). BMPs are identified through a planning process and applied by land managers for site-specific conditions. The effectiveness of the BMPs in protecting water quality is evaluated through instream water quality monitoring. The data is then evaluated against instream criteria developed to protect the beneficial uses of water.

Forest practices: A category of nonpoint source pollution including but not limited to harvesting, reforestation, residue management, forest management, road construction and maintenance.

Fully supported: Waters where designated or existing beneficial uses are sustained by the water.

Groundwater: The water beneath the surface of the earth.

Hardness: A measure of the amount of calcium, magnesium, and iron dissolved in the water.

Heavy metals: Naturally occurring metals such as cobalt, zinc, iron, nickel, and copper.

Hydrologic/habitat modification: A category of nonpoint source pollution including but not limited to channelization, dredging, dam construction, flow regulation or modification, bridge construction, removal of riparian vegetation, and streambank modification or destabilization.

Impact: When an activity has caused pollutants to enter surface waters.

Impair: When a pollutant impacting surface waters affects a beneficial use so that the use is no longer fully supported.

Injection well: A well drilled and constructed in such a manner that wastewater such as storm water or irrigation tail water can be pumped into the subsurface for disposal.

Internal Loading: The release of sediment-associated nutrients from the lake bottom into the water column.

Land disposal: A category of nonpoint source pollution including but not limited to sludge, wastewater, landfills, industrial land, on-site wastewater systems (septic systems, etc.), and hazardous wastes.

Limnology: The study of the biological, chemical, and physical characteristics of fresh water.

Loess Soil: A fine-grained, calcareous silt or clay, thought to be a deposit of wind-blown dust.

Macrophyte: Rooted aquatic plants.

Macroinvertebrate: Non-microscopic animals without backbones.

Mesotrophic: A moderately nutrient rich or fertile body of water.

Mining: A category of nonpoint source pollution including but not limited to surface mining, subsurface mining, placer mining, dredge mining, petroleum activities, mill tailings, and mine tailings.

Monitored: A stream segment (or aquifer) assessment based on site-specific water quality data *no more* than five years old. Sources of data may include chemical analyses of water, sediment, or biota in published reports, STORET, other databases or data in office files.

Narrative standards for sediment: As a result of man-caused point or nonpoint source discharge, in the absence of specific sediment criteria, waters of the state must not contain sediment in quantities which impair beneficial uses.

Nonpoint source (Surface Water): A source of surface water pollution that is diffuse and intermittent and related to land surface disturbing activities such as mining, grazing, crop production, or forest practices. Nonpoint sources of pollution are generally geographic areas yielding pollutants to surface waters in contrast to point sources that have identifiable points of entrance to surface waters.

Nonpoint source (Groundwater): A potential source of groundwater contamination that is diffuse and intermittent and is usually individually insignificant with respect to the amount of contaminants generated. The cumulative effect of a high density of nonpoint sources results in groundwater contamination.

Not supported: Waters where a beneficial use(s) cannot be sustained by the water. For any one pollutant, EPA criteria or state standards are exceeded by $> 25\%$, or criteria or standards are exceeded by $11-15\%$ and the mean of measurements is greater than the criteria or standards. Generally, pollutants are found at levels of concern.

Nutrients: Major substances necessary for the growth and reproduction of aquatic plant life including nitrogen and phosphorus.

Oligotrophic: A nutrient poor or infertile body of water.

Pathogen: Any micro-organism or virus that can cause disease.

Partially supported: Water where there is some uncertainty about beneficial use support. For any one pollutant that has been "monitored", EPA criteria or state standards are exceeded by $11-25\%$ and the mean of measurements is less than the criteria; *or* criteria or standards are exceeded by $\leq 10\%$ and the mean is greater than the criteria. Generally, pollutants are not found at levels of concern. On the basis of evaluated data (*not* monitored), nonpoint sources are present but may not affect the beneficial use(s), or no sources are present but there are complaints on record.

Perched aquifer: A localized saturated zone above a regional aquifer caused by the restriction of downward movement of water by a localized low-permeability soil or rock layer.

pH: A measure of acidity or alkalinity.

Point source (Surface Water): A source of surface water pollution such as a pipe, ditch, or channel that has an identifiable point of release to surface waters.

Point source (Groundwater): A source of groundwater contamination such as a surface spill, leaking underground tank, or landfill that has an identifiable point of release and zone of impact in the aquifer.

Potentially at Risk: Those waters that fully support their designated uses but that may not fully support uses in the future because of anticipated sources or adverse trends of pollution.

Primary contact recreation: Surface waters which are suitable or are intended to be made suitable for prolonged and intimate contact by humans for recreational activities when the ingestion of small quantities of water is likely to occur. Such waters include, but are not restricted to those used for swimming, water skiing, or skin diving.

Quaternary: A period of geologic time beginning approximately 600,000 years ago and ending about 12,000 years ago. This time period is considered very recent in geologic terms.

Recharge: The addition of water to an aquifer usually from percolation of surface sources such as precipitation, seepage through river beds and irrigation canals and ditches. Local irrigation practices may be a significant recharge source.

Regional aquifer: An aquifer of considerable aerial extent in which water moves slowly and circulates deeply.

Salmonid spawning: Waters which provide or could provide a habitat for active self-propagating populations of salmonid species.

Secondary contact recreation: Surface waters which are suitable or are intended to be made suitable for recreational activities on or about the water and which are not included in the primary contact category. These waters may be used for fishing, boating, wading, and other activities where ingestion of raw water is not probable.

Sedimentary aquifer: An aquifer composed of sandstone, carbonate rocks, or other consolidated material which was deposited by some geologic agent such as water, wind, ice, or gravity.

Streptococci: Spherical, gram-positive bacteria that are used as indicators of fecal pollution of water because of their original habitation in the intestine of man and animals.

Transmissivity: The rate at which water in an aquifer is transmitted through a unit width of an aquifer under a unit hydraulic gradient.

Trophic status: Level of growth or productivity of a lake as measured by phosphorus content, algae abundance and water clarity.

Turbidity: Condition of water resulting from suspended matter; water is turbid when suspended material is conspicuous.

Urban runoff: A category of nonpoint source pollution including but not limited to storm sewers, combined sewers and surface runoff.

Varied Assessment: Waters where beneficial use support status was reported by more than one submitter and differed.

Warm water biota: Waters which are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species which have optimal growing temperatures above 18° C.

Water Year: October 1st to September 30th.

EXECUTIVE SUMMARY

In 1987 Congress amended the federal Clean Water Act and renamed it the Water Quality Act. One of the amendments, Section 319, required each state to: 1) complete a statewide water quality assessment, and 2) develop a management program for controlling nonpoint source pollution affecting both surface water and groundwater.

The first step has now been completed by the Water Quality Bureau of the Idaho Department of Health and Welfare's Division of Environmental Quality. In order to meet another reporting requirement of the Water Quality Act [Section 305(b)], the scope of the report was expanded to include the state's biannual report on water quality. The report, entitled the **1988 Idaho Water Quality Status Report and Nonpoint Source Assessment**, provides an appraisal of the water quality of rivers, lakes, wetlands, and aquifers in Idaho that are being impacted by point, nonpoint, and toxic pollutants. The major focus of the report is to identify waters which are not meeting water quality standards or are not supporting beneficial uses due to pollution from point and nonpoint sources.

Nonpoint source pollution includes runoff from agricultural lands, mining operations, logging activities, construction sites and city streets. These sources are referred to as "nonpoint" because they cannot be traced to a specific identifiable point of entrance into a waterway or aquifer. These pollutants contrast with point source pollutants which are discharged from a specific "point" or stationary location. Common point sources of pollution are discharges from industries and municipal sewage treatment plants.

The 200-page report was prepared in cooperation with a Technical Advisory Committee, composed of representatives from federal and state natural resource agencies, citizen groups, and industry. Over 150 copies of the draft report were circulated for public review and comment.

This **Executive Summary** condenses the master report into two sections, surface water and groundwater. Nonpoint source activities were found to have a greater impact on Idaho waters than point sources. The focus of this summary is, therefore, on waters impacted by nonpoint sources. Each section outlines the nature of nonpoint source activities impacting water quality, identifies the major pollutants of concern and, for surface water, describes the beneficial use support status. Wetlands are discussed separately at the end of the surface water overview section.

For the purposes of this summary, the following terms are defined: **beneficial use** is the reasonable and appropriate use of water for a purpose consistent with Idaho state laws and the best interest of the people. They include, but are not limited to, domestic water supplies, agricultural water supplies, wildlife habitat, and recreation on or in the water; **biota** refers to all the plants and animals living in a given area; **pH** is a measure of acidity or alkalinity; **heavy metals** are naturally occurring metals such as cobalt, zinc, iron, nickel and copper.

The report and summary address the impacts of various pollutants on water quality. Some naturally occurring materials are considered to be pollutants if they occur in high concentrations. For example, excess soil erosion can lead to sedimentation in streams. The sediment covers the stream bottom, smothering the aquatic insects, and eliminating the insects as a food source for fish. Sediment also smothers the eggs of fish which are incubating in the stream gravels, and clogs the inter-gravel spaces so that newly hatched fish cannot survive.

Naturally occurring metals at high concentrations are lethal to aquatic insects and fish. These elements are often referred to as toxics, and are sometimes increased as a result of mining activities.

Aquatic life requires a certain balance of acidity to survive. If the pH exceeds the optimum range, negative impacts to the aquatic biota can result. Aquatic life similarly requires an optimum range of temperature and dissolved oxygen.

Nutrients are also naturally occurring in aquatic ecosystems. However, increases in nitrogen and phosphorus compounds, especially in lake systems, can cause excess growth of algae and aquatic plants. This can result in aesthetic impacts (odor and scum) and, in more extreme cases, toxic compounds can be produced by algae which can kill other animals if ingested.

Many bacteria occur naturally in water, but some disease-carrying forms are only present when animal or human-caused pollution enters water. Bacteria present a public health risk, and may make waters unsuitable for drinking and swimming.

Hydrologic modifications are changes in stream structure which cause impacts to aquatic habitat and the life cycles of the organisms living there. In general, a healthy water body is one where no single parameter is excessively high or low, and where a wide variety of aquatic organisms live.

SURFACE WATER CONDITIONS - STREAMS, LAKES, WETLANDS

Surface Water Overview

The nonpoint source assessment report concludes that nonpoint source activities have a major impact on Idaho waters. Of the total waters assessed 7% experience point source impacts while 57% experience nonpoint source impacts. The focus of the report and this executive summary is, therefore, on nonpoint source impacts on water quality.

Two types of data were used in completing the Nonpoint Source Assessment, monitored and evaluated. Monitored data is objective information on site-specific water quality conditions, obtained in the last five years. Evaluated data includes site-specific information older than five years, various surveys and inventories by land management agencies and best professional judgement by natural resource professionals. Over 12,000 miles of streams were determined to have some type of nonpoint source impacts. Not all of the stream miles impacted by nonpoint source activities have impaired uses. Monitored data upon which to base this assessment was limited to 17% of the impacted waters.

The Pacific Northwest Rivers (PNRS) Study was the stream segment and lake inventory database used for compiling water quality information for the nonpoint source assessment report. This system was initially developed by the Idaho Department of Fish and Game for use as a fisheries management tool. Using the PNRS stream classification system, the Water Quality Bureau requested information from local, state, and federal agencies, as well as interest groups, industry, Indian tribes, and citizens.

Over 16,000 stream miles and 700,000 lake acres were assessed in the PNRS inventory for nonpoint source pollution impacts. This is approximately 50% of Idaho streams, and includes all the major streams, most of the perennial streams, and some intermittent streams. Waters not assessed are primarily located in wilderness areas and mountainous, forested regions. The 700,000 lake acres reported here from the PNRS inventory is the best available estimate of total lake acres in the state.

Approximately 17% of streams do not support at least one of the beneficial uses protected by the Idaho Water Quality Standards (Figure 1). Approximately 49% partially support one of these beneficial uses. Of the assessed streams in Idaho, approximately 55% are reported as either fully supporting beneficial uses or the status of beneficial uses is unknown. It is assumed that the majority of streams in the 55% category probably support beneficial uses due to their remote locations in headwater areas.

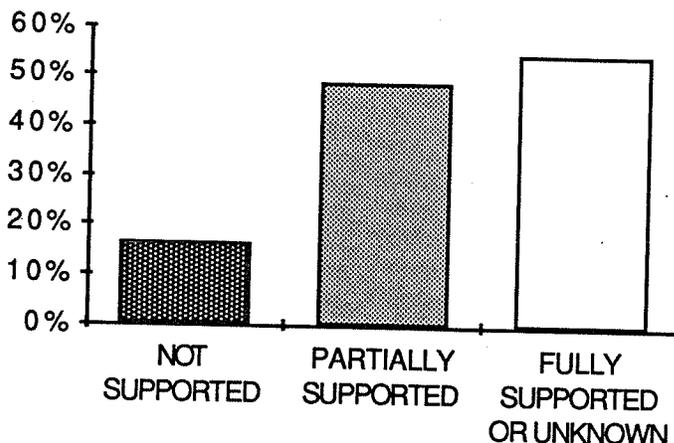


FIGURE 1. BENEFICIAL USE SUPPORT STATUS IN STREAMS PROTECTED IN THE IDAHO WATER QUALITY STANDARDS. Stream segments were considered fully supported or unknown if no submitter provided information to DEQ indicating any impairment of an existing beneficial use. (Note: some streams were reported as both "not supported" and "partially supported" and were included in both categories.)

Nonpoint source pollution categories impacting Idaho waters are summarized graphically. The legend for abbreviations used on the graphs are shown in Table 1.

TABLE 1. Major Nonpoint Source Categories Impacting Idaho Surface Waters.

<u>Nonpoint Source Category</u>	<u>NPS Category Abbreviation</u>
Agriculture	Agric.
Forest Practices	Forest Prac.
Construction	Const.
Urban Runoff	Urb. Run.
Mining	Mining
Land Disposal	Landisp.
Hydrologic Modification	Hydro. Mod.
Recreation	Recr.

The primary nonpoint source activity reported to be impacting beneficial uses in Idaho streams is agriculture (Figure 2). The second significant nonpoint source impact is hydrologic or habitat modification. Hydrologic modification was reported primarily as a secondary impact occurring in conjunction with nonpoint source activities such as grazing or forest practices. Other nonpoint source activities impacting Idaho waters are forest practices, construction, and mining. The extent of impacts from these activities varies by region. Agricultural activities affect more streams in the central and southern regions, while forest practices are more significant in the northern region.

Agriculture is also the primary nonpoint source activity reported to be impacting lake water quality (Figure 3). This is especially true in the southern regions of the state. Hydrologic modification, primarily reservoir draw-down for irrigation water use, also impacts water quality. Other nonpoint source activities impacting lake water quality include forest practices, construction and septic tanks. These impacts vary regionally and are more common in the northern region of the state where lakes are located in forested watersheds and recreational development of shoreline areas is more extensive.

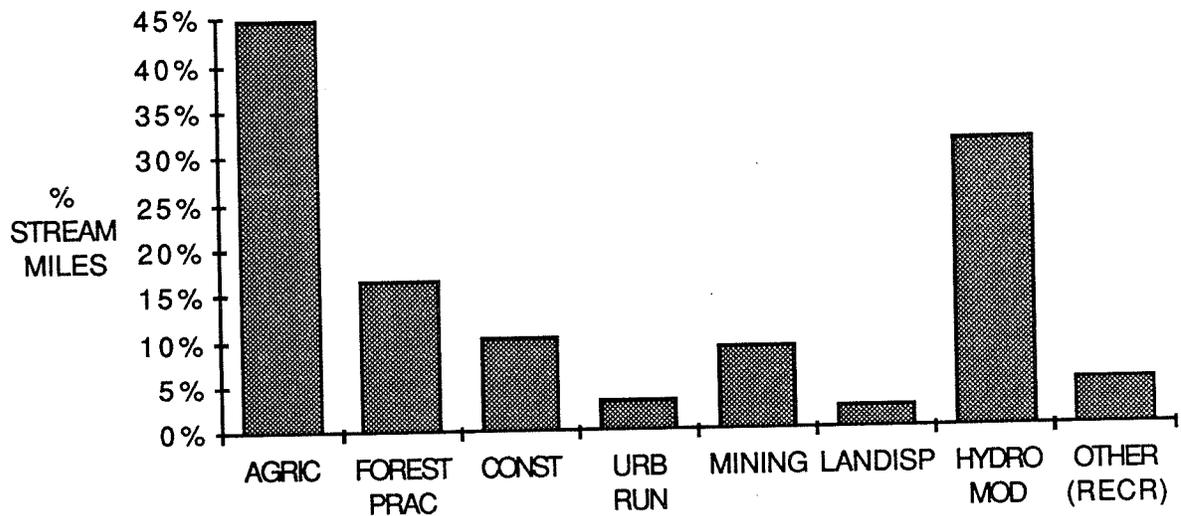


FIGURE 2. NONPOINT SOURCE CATEGORIES IMPACTING BENEFICIAL USES IN IDAHO STREAMS.

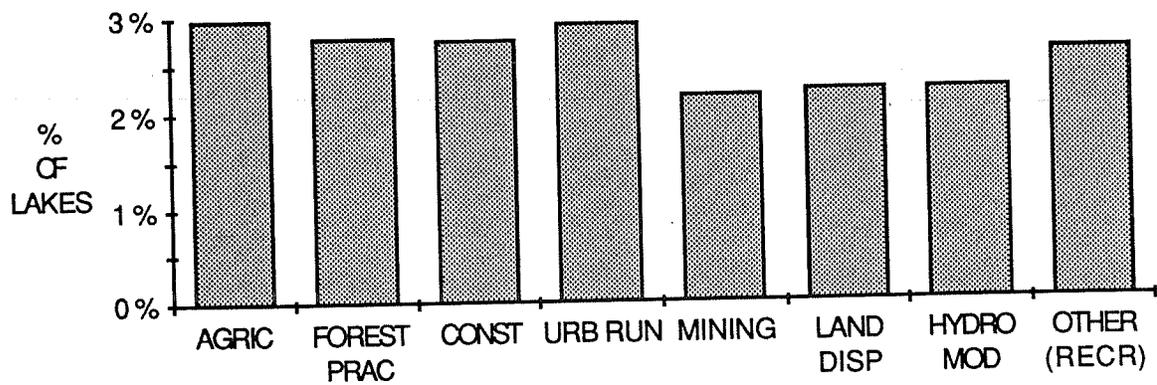


FIGURE 3. NONPOINT SOURCE CATEGORIES IMPACTING BENEFICIAL USES IN IDAHO LAKES.

Wetlands

The U.S. Environmental Protection Agency has identified 149 priority wetland areas in Idaho. Of these, 66 wetlands have nonpoint source impacts. Statewide, these impacts are primarily the result of agricultural activities, especially rangeland. In the northern region of the state, however, forestry activities are the primary impact on wetlands.

Regional Water Quality Overview

This section provides a more detailed discussion of water quality concerns by region of the state (Figure 4). The focus of this discussion is on those waters with impaired uses and the nature of water quality problems.

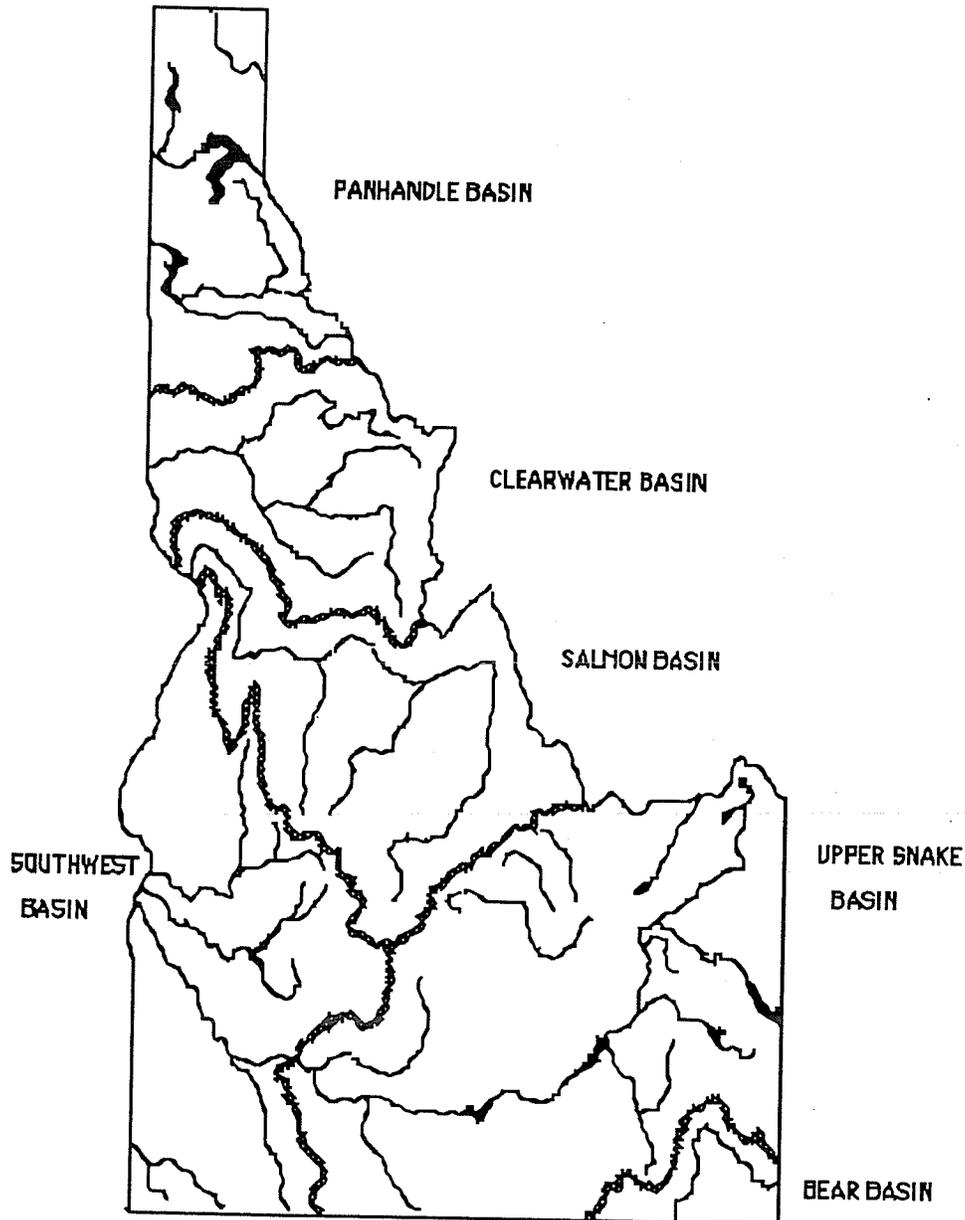


FIGURE 4. IDAHO HYDROLOGIC BASINS.

Northern Region

Area Description. The northern or panhandle region of the state is drained by three major basins: the Kootenai, Pend Oreille, and Spokane River basins. The topography consists of mountainous areas and mountain valleys. The mountain areas are covered with mixed coniferous forests, while large lakes are a feature of the valley areas. The Silver Valley along the South Fork of the Coeur d'Alene River has been developed over the past 100 years for mining and smelting. Population is dispersed with Coeur d'Alene as the major population center.

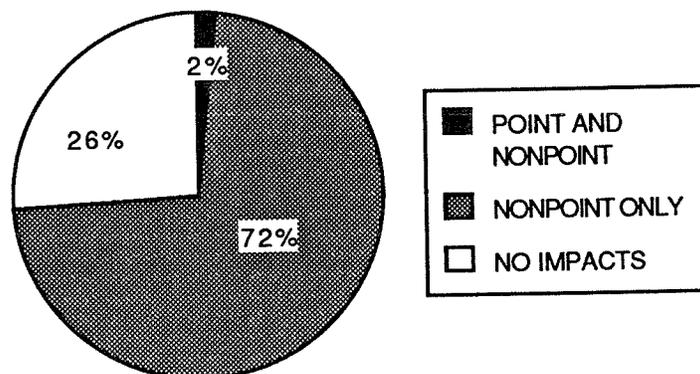


FIGURE 5. MAJOR SOURCES OF IMPACTS TO NORTHERN REGION STREAMS.

Water Quality Concerns. Of the total stream segments assessed in this region, 72% are impacted by nonpoint source activities (Figure 5). Past timber harvest, forest road building, and placer mining in many mountainous areas have caused widespread stream sedimentation. Mining and smelting have caused sedimentation, heavy metals, and pH problems in the South Fork of the Coeur d'Alene River and many of its tributaries. Along some stream reaches all beneficial uses are impaired. Agriculture and grazing have caused pollution from sediment, nutrients, and bacteria. Cold water biota and salmonid spawning are impaired by these activities on many stream reaches.

Several different activities affect lake water quality in this region. Many lakes have extensive primary and recreational home development. As a result, water quality impacts from construction, urban runoff, and septic systems occur. Agriculture, and past and present forest practices and mining activities in the upper watersheds have also impacted lake water quality.

Nutrient enrichment is the main pollutant affecting lakes. Sedimentation, bacteria, and metals toxicity are also pollutants of concern. Although the majority of lakes in the region fully support beneficial uses, perception is that many lakes are worsening. If water quality declines further, beneficial uses could be at risk.

Central Region

Area Description. The central region of the state is composed of the Clearwater River and Salmon River basins. Topography is primarily rugged mountainous terrain and coniferous woodland. The majority of land in both drainages is public and administered by the U.S. Forest Service. The remaining lands, which are either private or state owned, are in the lower portions of the basins where both the Salmon and Clearwater Rivers drain into the lower Snake River, and where Idaho borders Oregon and Washington. This area is characterized by rolling hills of the Palouse prairie, much of which is utilized for non-irrigated crop production and rangeland.

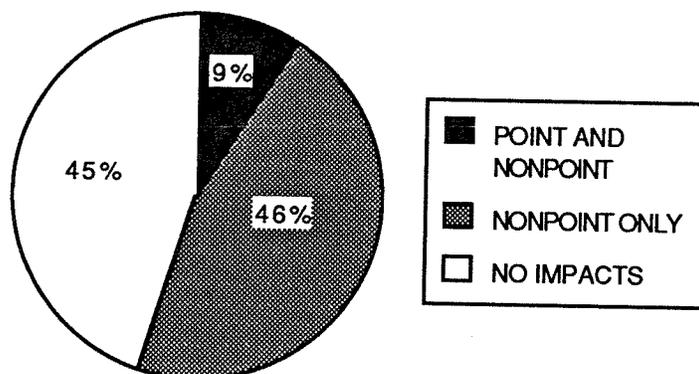


FIGURE 6. MAJOR SOURCES OF IMPACTS TO CENTRAL REGION STREAMS

Water Quality Concerns. Of the total stream segments assessed in this region, 55% are impacted by nonpoint source activities. In the central region, the primary pollutant of concern is sediment, but there is no single land use that is the major cause of beneficial use impacts. Five major nonpoint source categories; agriculture, forest practices, mining, and hydrologic modification all contribute to sedimentation in this region.

Non-irrigated crop production on the highly erosive soils of the Palouse is a major impact on water quality in the lower Clearwater River basin. Grazing is also a significant water quality concern throughout the region. The major pollutants from these activities are sediment, nutrients, and bacteria. Forest practices predominate on public land in the upper Clearwater and Salmon River basins, while mining impacts play a greater role throughout the Salmon River basin. Acid mine drainage causing sedimentation and heavy metal pollution in the Panther Creek drainage has severely impacted the cold water fishery and salmonid spawning habitat.

Hydrologic modifications such as channelization, dredging, removal of vegetation, and streambank destabilization occur in association with agricultural, mining, timber harvest, and construction activities. Cold water biota and salmonid spawning are the beneficial uses most affected by the sedimentation resulting from these nonpoint source activities.

Lake water quality in this region is affected by nonpoint source activities occurring in upper watersheds. Forest practices and agriculture are the main nonpoint sources of impact. Sediment, nutrients, and bacteria impact water quality from agriculture. Sedimentation and

temperature alterations are impacts resulting from forest practices. Temperature and habitat alteration from irrigation draw-downs in reservoirs are also a water quality concern.

The majority of lakes in this region are small and are used as reservoirs for irrigation water. In general, water quality in the smaller lakes is poor. Beneficial uses most commonly impaired are cold water biota and salmonid spawning. In addition to these uses, domestic water supply and primary and secondary contact recreation are impaired at Winchester Lake from agricultural activities.

Southwest Region

Area Description. Topography in this region ranges from mountainous to high plateaus with major river valleys. The area south of the Snake River is characterized as a high, semi-desert plateau. The mountainous areas north of the river include the Boise, Salmon River, and West Mountains and the Sawtooth Range. Dry coniferous forests cover these areas. Mountainous areas are used for timber harvesting, grazing and mining. The semi-desert regions are used primarily for grazing, while irrigated agriculture is a primary use of lands adjacent to large rivers. The largest urbanized area in the state, Boise-Nampa-Caldwell (also known as the Treasure Valley), is located in this region.

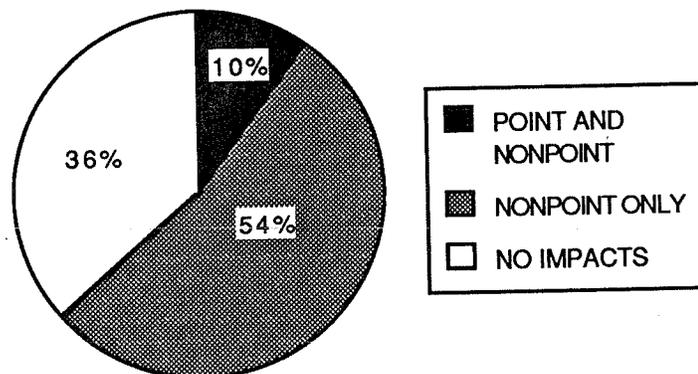


FIGURE 7. MAJOR SOURCES OF IMPACTS TO SOUTHWEST REGION STREAMS.

Water Quality Concerns. Of the total stream segments assessed in this region, 64% are impacted by nonpoint source activities. Forest practices and mining have caused sedimentation of some streams. In isolated areas where extensive mining has occurred, heavy metals and occasionally pH are additional water quality problems. These activities have impaired cold water biota and salmonid spawning in some reaches. Grazing activities have caused sedimentation, flow and habitat alterations, and bacterial pollution in many streams.

These water quality problems are most pronounced in the semi-desert regions of the southwest area. Cold water biota, warm water biota and salmonid spawning have been impaired by grazing, forest practices and mining activities. Irrigated agriculture has caused sedimentation and pesticide pollution from return flows to major rivers and the lower reaches of their tributaries. Cold water biota and salmonid spawning have been impaired by these

pollutants. Urban runoff is a problem in the heavily populated areas of the Treasure Valley. The runoff has an impact on the Boise River and some of its tributaries, where cold water biota and salmonid spawning are already impaired by sedimentation.

Water quality is generally good in the high mountain reaches of the principal watersheds of the southwest basin. Water quality is impacted by timber harvest, mining, irrigated agriculture and grazing in the mainstems of the major rivers.

Most lakes in this region are large artificial impoundments created for irrigation water storage and power production. The most significant source of impact to these reservoirs is agriculture. Lower elevation river impoundments and reservoirs have the poorest water quality. Nutrients, sediment, and bacteria are the main pollutants of concern. Water quality is good at higher elevation reservoirs with the exception of Cascade Reservoir. Numerous activities impact this reservoir: septic tank impacts from shoreline homes, agricultural activities in the valley bottom and forest practices and mining in the upper watershed. There are also two point source discharges to the North Fork of the Payette River above the reservoir. Nutrient enrichment and bacterial contamination are major concerns. Beneficial uses impaired in the lakes of this region include domestic water supply, cold water biota, salmonid spawning, and secondary contact recreation.

Southeast Region

Area Description. Southeastern Idaho is characterized by mountainous terrain and flat to gently sloping plains changing to semi-desert in the plateau lowlands. Lush coniferous forests grow in the northern and eastern mountains. Major urban areas are Idaho Falls, Pocatello, and Twin Falls. Major land uses are woodland, rangeland, and both irrigated and non-irrigated cropland. The Idaho National Engineering Laboratory near Arco, Idaho, is located over the Snake Plain Aquifer.

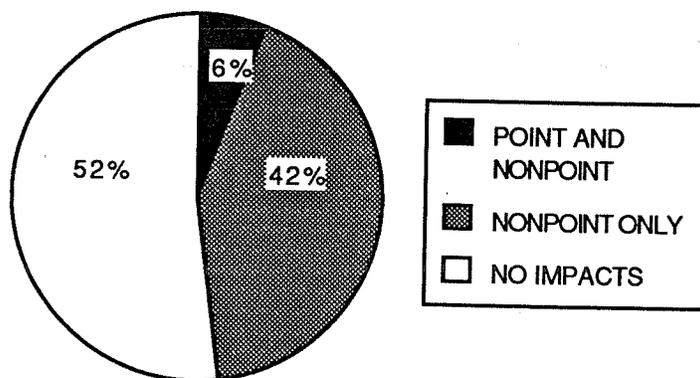


FIGURE 8. MAJOR SOURCES OF IMPACTS TO SOUTHEAST REGION STREAMS.

Water Quality Concerns. Of the total stream segments assessed in this region, 48% are impacted by nonpoint source activities. The primary nonpoint source activities impacting water quality in this region are agriculture, hydrologic modification, and some construction and mining. Pollutants of concern resulting from these activities include sediment, bacteria,

nutrients, organic enrichment, and pesticides. Beneficial uses impaired by nonpoint source pollution include cold water biota, salmonid spawning, and primary and secondary contact recreation.

Artificial river impoundments dominate this region of the state. Many are reservoirs on the main stem of the Snake River created for irrigation water storage and power generation. Agriculture is the main nonpoint source activity affecting lakes in this region. Pollutants of concern include nutrients, sediment, bacteria, and organic wastes. Water level fluctuations from irrigation water draw-downs have also impacted water quality by increasing temperatures and decreasing dissolved oxygen in some reservoirs.

Although most of the lakes in this region are moderate to very productive, most fully support their beneficial uses. Cold water biota and salmonid spawning have been reported as impaired in some lakes. There is concern these uses could be at risk in the future if water quality declines further.

SURFACE WATER PROGRAMS

Current Surface Water Pollution Control Programs

There are several current or developing programs which address nonpoint source pollution problems in Idaho. These include nonpoint source water quality standards, the State Agricultural Water Quality Program and the Forest Practices Program.

Additional programs to reduce water quality impacts from nonpoint source activities need to be determined. This will occur through development of a nonpoint source management plan required under Section 319 of the Water Quality Act. Completion of this plan is discussed in the closing section of this executive summary.

Nonpoint Source Standards

The State Water Quality Standards and Wastewater Treatment Requirements were revised in 1987 to address nonpoint source impacts. After public input, a process for controlling nonpoint source impacts on water quality through use of Best Management Practices (BMPs) was adopted. This process is known as the "feedback loop." The BMPs are applied by land managers and their effectiveness is evaluated through on-site and instream monitoring. The BMPs are changed through a public participation process if beneficial uses have not been adequately protected.

Agricultural Water Quality Program

The State Agricultural Water Quality Program has been in operation since 1979. Planning grants are available for identifying critical agricultural acreage which is contributing to water quality problems. Implementation grants for cost-sharing installation of appropriate control practices with farmers are also available through this program. Implementation of BMPs to control impacts from agriculture is voluntary. These BMPs have not been formally adopted in the state Water Quality Standards. To date 15 planning grants and 21 implementation grants have been made to local Soil Conservation Districts to solve water quality problems from approximately one-half million acres of agricultural land.

Approximately 11.5 million dollars in state funds have been allocated to these projects. It is estimated that the land owner's cost-share portion will match the amount of grant funds invested by the end of their 10-year contracts.

Forest Practices Program

The Idaho Department of Lands administers the Forest Practices Act (FPA) which contains the approved Best Management Practices for controlling impacts from forest practice activities on water quality. These BMPs are approved in the state Water Quality Standards and are mandatory for protecting water quality from forest practice activities. The FPA rules and regulations have been recently revised and updated and IDL has increased inspection, education and enforcement activities with the addition of new staff.

The Water Quality Bureau revised the Forest Practices Water Quality Management Plan in 1988 and has memoranda of agreement with the other designated management agencies. The plan outlines action items for each designated management agency necessary for protecting water quality from the impacts of forest activities. The Bureau obtained additional state funding in 1988 to implement its action items, including monitoring the effectiveness of forest practices BMPs. Recent improvements in the Forest Practices Program are a result of the combined efforts of industry, state and federal agencies and concerned citizens.

Mining

The Idaho Department of Lands is the permitting agency for all major surface mining activities in Idaho through the Surface Mining Act and the Dredge and Placer Mining Act. Improvements under these acts since 1983 include actual cost bonding for reclamation, adoption of rules and regulations for dredge and placer mining, and development of rules and regulations for surface mining. Improvements in inspections and enforcement have also been made with the addition of new staff. BMPs for controlling nonpoint source impacts from mining activities have not been adopted in the state Water Quality Standards. The Department of Lands is currently in the process of formalizing mining BMPs.

The Water Quality Bureau is the permitting agency for mining operations using cyanidation for recovery of precious metals. Rules and Regulations for Ore Processing by Cyanidation were adopted in 1988 providing safeguards for Idaho waters from possible impacts from this type of mining operation. These rules were developed with the participation and endorsement of the mining industry.

GROUNDWATER CONDITIONS

Groundwater Overview

Idaho ranks in the top five states in the U.S. for volume of groundwater used. The major use is for irrigation, although over 90% of Idaho's drinking water comes from its aquifers.

Idaho's principal aquifers have been mapped, their geology characterized and they have been ranked according to vulnerability or sensitivity to contamination. The Boise Valley, Snake Plain, and Rathdrum Prairie ranked highest in terms of vulnerability. The major aquifers underlie the state's population centers and some of the most productive agricultural land. Statistical evaluations of the state's groundwater quality used in this report are based on the U.S. Geological Survey's WATSTORE data base.

Groundwater Quality and Conclusions

The quality of most groundwater in Idaho is good. Most groundwater is suitable for drinking, agricultural, and industrial uses. Naturally occurring contaminants such as dissolved solids, fluoride, and hardness restrict water use in some areas. In addition, contamination from both

point and nonpoint sources has occurred. Where contamination has been found, it is generally localized, ranging from a few acres up to several square miles. In instances where water supply wells have been impacted, the contamination is generally limited to a small number of wells.

The most common point sources of groundwater contamination are above and below ground petroleum storage, leaks and accidental spills of industrial chemicals, and land application of wastewater. Nonpoint sources are poorly understood in Idaho, principally because monitoring data are inadequate or nonexistent. The relative importance of nonpoint sources versus point source impacts is not known.

Because monitoring data are limited, individual nonpoint sources were difficult to identify and assess. Of the large variety of potential contaminant sources, agriculture, septic systems, and urban runoff were selected for discussion in this report.

Septic systems can impact groundwater when the water table is shallow, soil conditions are inappropriate for the system design, or system density is excessive. Idaho's regulations allow for innovative system design where site conditions are not suitable for standard systems. In some areas, central sewer systems are the preferred alternative. For the large sparsely populated areas in the state, improved siting and management of systems is the only feasible approach for sustained operation without groundwater impacts.

Virtually no monitoring has been done for agricultural chemicals in groundwater in Idaho. Data from other states show that field applied chemicals can reach groundwater in significant quantities under certain combinations of factors such as soil permeability, chemical mobility, and water application practices. Studies in Idaho have documented that fertilizer materials leach below the root zone in localized areas throughout the state. The very limited groundwater sampling done for pesticides to date has not revealed levels which pose a public health threat, although these chemicals are being found in groundwater in trace quantities. Clearly, monitoring efforts need to be expanded before this important issue can be adequately addressed.

Impacts on groundwater from infiltration or injection of urban runoff water are poorly investigated in Idaho. However, in the Spokane Valley in Washington, 30% of the total dissolved solids delivered to the aquifer and 60% of the toxic metal loading to the aquifer are estimated to be derived from urban runoff. Improved storm drainage practices are particularly important where population centers are situated over vulnerable aquifers such as the Rathdrum Prairie and the Boise Valley.

GROUNDWATER PROGRAMS

Current Groundwater Pollution Control Activities

Programs are either under development or being implemented to address many of the problems identified above. Included are programs for underground tanks, septic systems, and land application of wastewater. Special management programs are in place for the Snake Plain and the Rathdrum Prairie aquifers.

Most groundwater programs to date have concentrated on point sources. Programs for nonpoint sources of groundwater contaminants are generally in the early stages of development. Many of the Bureau's groundwater programs involve other agencies (such as the Department of Water Resources and the Department of Agriculture) and most are assisted by an advisory committee of agency, citizen, and industry representatives.

Priority areas for future program development include the development of a groundwater monitoring program. Monitoring data are needed to identify problem areas and to ensure that groundwater programs are designed around accurate scientific information. Other priorities include the development of an interagency program to address agricultural impacts on groundwater quality, increased local government and citizen participation in groundwater protection efforts, and the completion of mapping local groundwater vulnerability for the entire state.

SUMMARY

The primary purpose of the nonpoint source assessment was to determine where nonpoint source activities are impacting beneficial uses of Idaho waters. The next step is to determine the corrective actions necessary to solve the major nonpoint source pollution problems identified in the assessment report. With the help of the Nonpoint Source Technical Advisory Committee, the Bureau will be completing a Nonpoint Source Management Program Plan also required under Section 319 of the Water Quality Act.

In certain nonpoint source areas such as irrigated and non-irrigated cropland and forest practice activities, programs have been developed to solve nonpoint source problems. In other areas, such as groundwater impacts, grazing and mining, more work needs to be done.

Completing the Nonpoint Source Management Program Plan will involve identification of existing programs, available BMPs for solving problems, agency authorities to take action, and funding sources to pay for correcting pollution problems. This information will be compared to the major findings of the nonpoint source assessment report which will reveal where deficiencies in nonpoint source pollution control exist. The combined information will be used to prepare a 5-year work plan for developing and implementing the nonpoint source pollution controls needed to protect Idaho surface and groundwaters.

INTRODUCTION

The purpose of this report is to provide an assessment of the water quality of rivers, lakes, and groundwater in the State of Idaho, that are being impacted by nonpoint, point, and toxic pollutants. This report is intended to satisfy the requirements of Sections 319, 305(b), 304(l), and 314 of the federal Water Quality Act. It will also serve as a management tool for targeting priority waters and implementing pollution control strategies.

Water Quality Act Requirements

In January, 1987, Congress passed the Water Quality Act of 1987 (formerly called the Clean Water Act). This legislation establishes a national policy for the development and implementation of control programs for nonpoint sources of pollution in order to achieve the "fishable" and "swimmable" goals. Section 319 of the Act authorizes significant financial assistance for implementation of control programs. However, Congress did not appropriate any 319 funds for federal fiscal years 88 or 89. As a requirement of the Act, each state must submit a Nonpoint Source (NPS) Assessment Report and a Nonpoint Source Management Program Plan to the U.S. Environmental Protection Agency (EPA). This assessment report will provide the basis for the development of the management program.

The Division of Environmental Quality (DEQ) of the Idaho Department of Health and Welfare has prepared a water quality status report biannually since 1974 pursuant to Section 305(b) of the Clean Water Act. Due to the relatively small number of point sources in Idaho, the major focus of these reports has been the nature and extent of nonpoint source pollution. Section 305(b) requires states to report on the status of surface and groundwater quality, identify causes of water quality problems, describe and evaluate pollution control programs underway, and recommend necessary future program actions. A major difference between this report and previous ones is the extensive information collected to meet the requirements of the NPS Assessment under Section 319. The nonpoint source database used in completing this report was expanded to include existing information from other state and federal agencies. The process for involving other agencies and organizations is described in the Materials and Methods section beginning on page 3.

In order to fulfill the requirements of Section 314, this report provides an assessment of lake quality and a general description of the methods and procedures to control sources of lake pollution and restore lake quality. A preliminary assessment of waters affected by toxic pollutants is also provided pursuant to Section 304(l). This report also includes a review of existing water pollution control programs.

This report is the first annual report required under the new amendments of the Water Quality Act. The information included here is the first attempt by the Water Quality Bureau to solicit comprehensive information on water quality in Idaho. DEQ is continually acquiring new information and confirming the information which has been submitted for this first report. DEQ is establishing a monitoring program to obtain data on stream segments and is attempting to resolve the variations in information provided by submitters. DEQ will continually refine and update information on waters in Idaho in subsequent annual reports.

Nonpoint Source Definition

The major focus of this report is the identification of waters which are not meeting water quality standards or are not supporting beneficial uses due to pollution from nonpoint sources and to identify the type of nonpoint source activities causing the problem. Nonpoint sources are diffuse and intermittent. They enter surface or groundwaters by overland flow or infiltration. These contrast with point sources which are discharges into waterways through discrete

conveyances, such as pipes and channels. Point source discharges to surface waters are regulated by the National Pollutant Discharge Elimination System (NPDES) administered by the EPA. Pollution from nonpoint sources occurs when the rate at which pollutant materials entering waterbodies or ground water exceeds natural levels.

Public Involvement

A Technical Advisory Committee (TAC) was formed in the fall of 1987 composed of representatives from federal and state natural resource agencies, citizen groups, and industry (a list of the TAC members is included in the Acknowledgments on page iii). The TAC provided input in planning the Assessment and furnished information on nonpoint source pollution throughout the state. Agencies also identified programs they had developed to deal with NPS pollution.

An informational brochure explaining the Draft Assessment and its development process was mailed to 1,700 people who regularly receive the *Clean Water News* informational newsletter from the Water Quality Bureau. Additional brochures were provided to the TAC for distribution. The brochure contained a form for requesting a copy of the Draft Assessment. More than 150 people requested copies of the Draft Assessment through the brochure request form. Copies of the report were also available for review at DEQ central and regional offices and at District Health Department offices. A press release was distributed to media offices in the state announcing availability of the Draft Assessment and the Final Assessment. Public comments on the draft were accepted during a 30-day review period for consideration in the Final Report. A public comment period will also be provided for the Final Assessment.

MATERIALS AND METHODS

Surface Water Quality

Two data bases were used in preparing this report and interpretations made from this data are necessarily general. The intent is to provide a general characterization of water quality statewide using the available in-stream data and additional information provided by the Technical Advisory Committee (TAC).

The quantitative data base used in conducting the Water Quality Indexes (WQI) reported here was the National Water Quality Data Storage and Retrieval System (STORET) maintained by the U.S. Environmental Protection Agency, and monitored data from cooperating agencies. A stream segment information data base composed of both monitored and evaluated data was also compiled in order to complement in-stream data. Monitored data is site-specific, water quality data less than five years old. Evaluated data includes in-stream data which is older than five years and descriptive information on stream or watershed conditions.

Due to the varied nature of available information, certain qualifications on the data were established for use in the WQI which were generated. These were:

The period of record considered to be representative of current conditions was October 1982 to October 1987.

Minimum frequency of data collection was quarterly for at least one complete water year in the five year period of record.

Data used in preparing the WQI for this report included water years 1982 through 1987. Data were collected by the U.S. Geological Survey (USGS) and/or Idaho Division of Environmental Quality (DEQ) on a monthly basis through water year 1983. Data coverage after water year 1983 varied between collecting agencies. Data from Bureau of Reclamation monitoring activities which began in January, 1985 were also included in the WQI. Most of the data used to determine the WQI were reported in previous years, very little additional monitored data have been obtained since the 1986 Water Quality Status Report. Station names, numbers, and collecting agencies are shown in Table 1.

The primary analytical tool for evaluating Idaho water quality data was the EPA Region X Water Quality Index (WQI) Program. A value is determined for each measured parameter. This value is taken from a "severity curve" for that particular parameter. A severity curve is a plot of measured values against criteria values for threshold and acute levels of a given constituent. There are two break points in the WQI; the first at 20 points, corresponding to threshold criteria levels and the second at 60 points, corresponding to acute criteria levels. The severity curves are used to account for the differences in sensitivity of aquatic life to various constituents.

There are nine pollutant categories in the water quality index. The program takes the parameter WQI values, aggregates them into pollution category components and the most representative component for each pollution category is selected. Average monthly WQI values are calculated for each category and a second WQI is calculated for the worst three consecutive months. The latter value gives an indication of seasonal differences in conditions. The overall station WQI is an aggregate of the monthly averages for each pollutant category plus a penalty factor for each category that exceeds threshold criteria levels. This type of aggregation addresses cumulative effects of multiple pollutants on overall water quality. This explains how the overall station WQI rating can be worse than the individual pollutant category ratings.

The water quality criteria are set internally in the WQI program and reflect the water pollution control goals of the respective agencies. For Idaho the goal is to protect the beneficial uses of state waters. For EPA it is to provide fishable, swimmable waters wherever attainable. The WQI therefore serves as a general indicator of relative progress toward achieving water quality goals.

Water Quality Index Program results are reported for each of the six hydrologic basins in a Water Quality Profile for that basin. There are two values shown for each pollutant category. The first value is an average WQI for water years 1982 through 1987. The next value represents the worst case water quality conditions observed in the same period of record. This is expressed as an average WQI for the worst three consecutive months.

Water Quality Index numbers range from zero to one hundred. The "Average WQI" is the average for the number of observations for each category. The "Worst 3 Mo. WQI" is the average for the worst three consecutive months during the period of record. The "Water Quality Rating" is the descriptive rating for the worst three months. For interpretive purposes a descriptive rating of overall water quality conditions is given. Overall conditions are shown as an average value for the period of record with the worst three months in parentheses. The rating is defined in Table 2 on page 6. The overall descriptive rating is based on the WQI value for the worst three consecutive months. In general, the lower the WQI the better the water quality conditions.

Table 1. Water Quality Monitoring Stations

Segment #	Station Name	STORET #	Collecting Agency
BB-10	Bear River at WY Line	10039500	USGS
BB-20	Bear River at Soda Springs	151042	DEQ
BB-40	Bear River near Preston	151181	DEQ
USB-10	Snake River near Heise	13037500	USGS
USB-230	Henry's Fork near Rexburg	151105	DEQ
USB-20	Snake River at Menan	151182	DEQ
USB-30	Snake River below Blackfoot	151102	DEQ
USB-360	Snake River near Blackfoot	151103	DEQ
USB-420	Portneuf River at Siphon Road.	151109	DEQ
USB-60A	Snake River at Burley	151183	DEQ
USB-730	Rock Creek at mouth near Twin Falls	2060146	USGS
USB-820	Salmon Falls Creek above mouth	151057	DEQ
USB-870	Malad River above Malad Canyon	151169	DEQ
USB-80	Snake River at King Hill	131154500	USGS
SWB-120	Bruneau River near Bruneau	151067	DEQ
SWB-260	Boise River below Lucky Peak Dam	B01101	BOR
SWB-270	Boise River at Glenwood Bridge	B01106	BOR
SWB-270	Boise River near Middleton	B01132	BOR
SWB-280	Boise River near Parma	B01133	BOR
SWB-20	Snake River at Marsing	151162	DEQ
SWB-324	Payette River at Hartsell Bridge	GAR100	BOR
SWB-340	Payette River below Black Canyon Dam	EMM015	BOR
SWB-340	Payette River at Letha Bridge	EMM025	BOR
SWB-340	Payette River near Payette	EMM010	BOR
SWB-40	Snake River at Weiser	1324900	USGS
SWB-420	Weiser River near Weiser	151092	DEQ
SWB-60	Snake River at Hells Canyon Dam	13290450	USGS
CB-150	Clearwater River at Spaulding	13342500	USGS
CB-140	Clearwater River at Orofino	151003	DEQ
CB-146	NF Clearwater at Ahsahka	151004	DEQ
PB-10S	Coeur d'Alene River at Enaville	151186	DEQ
PB-140S	SF Coeur d'Alene River at Enaville	151018	DEQ
PB-20S	Coeur d'Alene River at Rose Lake	151100	DEQ
PB-330P	St. Joe River at St. Maries	151014	DEQ
PB-40S	Spokane River at Post Falls	151185	DEQ
PB-10P	Clark Fork River below Cabinet Gorge	2000256	DEQ
PB-10P	Clark Fork at Clark Fork	151026	DEQ
PB-30P	Pend Oreille River at Newport	151028	DEQ
PB-30K	Kootenai River at Porthill	12322000	USGS
PB-30K	Kootenai River near Copeland	12318500	USGS

Table 2. Key to Water Quality Index Values

Water Quality Index	Rating	Definition
0-20	Good	Water quality is generally high and beneficial uses are fully supported
21-60	Fair	Water quality is periodically marginal & uses are partially supported
61-100	Poor	Water quality is poor not supporting beneficial uses
I.D.		Insufficient Data

The monitored and evaluated data provided by the NPS-TAC and DEQ was used to develop an additional data base to supplement the WQI. In the fall of 1987, DEQ formed the NPS-TAC composed of federal, state and local agencies, and interested groups. At the first TAC meeting in November 1987, participants were informed of the purpose of the Assessment, and the procedures for completing the report were reviewed. Information was solicited from all members of the TAC on nonpoint source impacts to all waters in the state.

The Pacific Northwest Rivers Study (PNRS) was the stream segment and lake inventory database used for compiling site-specific information on water quality impacts. Members of the TAC were provided copies of the PNRS list for providing information on impacted waters. This list of 1,600 stream segments and lakes allows a much greater degree of specificity in reporting information on nonpoint source impacts to water quality than the 241 stream segments listed in the Idaho Water Quality Standards and Wastewater Treatment Requirements that has been used in previous reports. Information received according to PNRS numbers was correlated to Water Quality Standards numbers. Many of the additional stream segments are tributaries to streams listed in the Water Quality Standards. Information on these segments was correlated to the Water Quality Standards stream segment to which these segments are tributaries. Every attempt was made to ensure that no information was duplicated in order to report on total stream miles impacted as accurately as possible. TAC members were also provided a list of the nonpoint source pollution categories and subcategories, and the primary pollutant codes as established by the EPA for reporting this data (Appendix A).

Many resource agencies and interest groups provided information for this report. These include the Bureau of Land Management (BLM), U.S. Forest Service (USFS), Idaho Department of Lands (IDL), Idaho Department of Fish and Game (IDFG), the Nez Perce Indian Tribe, the Soil Conservation Commission (SCC), the Hagerman Valley Citizens Alert, and the Environmental Protection Agency (EPA), and Health and Welfare DEQ.

These "cooperators" provided information on the sources of nonpoint pollution impacts to water bodies, an evaluation of the ability of waters to support beneficial uses, the primary pollutants affecting the water bodies, trophic conditions in lakes, and any mitigation programs scheduled for specific water bodies. Submitters were asked to provide the source of this information, such as agency inventories, evaluations or monitoring, and an assessment of the information's reliability. After all information was entered into the data base, DEQ mailed copies of the

information back to the original submitter for proofing. Any changes or corrections were then made.

Numerous other sources of information were utilized in completing this report. Each DEQ field office submitted information on stream segments in their regions. Information from the 1983 Agricultural Pollution Abatement Plan and the 1987 update to that plan was also incorporated into the data base. DEQ water quality studies and surveys conducted since 1979 were reviewed and pertinent information was added to the data base. The data base includes information on streams, lakes, aquifers, and wetlands.

The data base is composed of both evaluated and monitored data from all submitters. The types of information included are forest and range inventories and stream surveys, numeric information gathered from instream monitoring, information published in research documents, and personal evaluations. Much of the information is based on the best professional judgement of natural resource professional personnel and members of natural resource organizations.

Variations in information on the same segments were obtained from several cooperators. Included were variations in assessment of NPS impacts, in degree of impact, sources of pollutants, and affects on beneficial uses. The consensus decision of the TAC was that the differences be retained and displayed as a range of information on each water body. All information provided is included in this report.

Streams

Segment specific information was compiled for each of the stream segments in the Water Quality Standards and for additional segments according to PNRS numbers which are not designated in the standards. PNRS numbers were correlated to water quality segment designations. Frequently, more than one PNRS segment corresponds to a Water Quality Standards segment due to differences in designated boundaries between the two numbering systems. Tributaries are grouped with the stream to which they are tributary. Any stream segment for which information was obtained indicating nonpoint source impacts was included in this report.

Each hydrologic basin discussion summarizes the surface water quality conditions in that basin. Streams were grouped by watersheds and sub-basins. Descriptions of the types of nonpoint sources of pollution are provided, the impacts on existing beneficial uses as reported by submitters, and the primary pollutants in each watershed.

Stream segments were sorted according to the type of nonpoint sources of pollution which were impacting beneficial uses. Only stream segments which were reported by the TAC as not fully supporting beneficial uses were included in the information presented graphically for each basin. The graphs and charts were generated from the summary database in which information on each stream segment indicates the range of information provided by submitters. No distinction is made between nonpoint source pollution resulting from historic sites where activities are no longer occurring and those sites where current activities are generating nonpoint source pollution. All stream segments with nonpoint source impacts resulting in water quality conditions that do not fully support beneficial uses are shown in Appendix A.

Lakes

Lakes were incorporated into the data base similarly to streams, using segment designations according to the Water Quality Standards and numbers assigned under the PNRS. Information compiled for each lake includes trophic status, sources of impact, beneficial use support status, and major pollutants (Appendices A and B).

The major reference document used to verify or complete lake trophic status information was *Classification of Idaho's Freshwater Lakes* (Milligan et al. 1983). This study examined a sub-population of 85 Idaho lakes through one time sampling during peak productivity. A trophic status index to classify these lakes was developed using a linear weighted sum of eleven variables.

A review of lake water quality conditions is given in each hydrologic basin discussion. Sources of impacts and beneficial use support status are summarized and reported graphically. It should be noted that the beneficial use support status for lakes was reported graphically on an all-or-nothing basis. The total surface acreage of a lake was used in calculations since lake information was inadequate to quantify extent and duration of use impairment. Professional knowledge of individual lake conditions shows use impairment to be very localized and seasonal in many lakes. Due to the all-or-nothing basis for graphics calculations, beneficial use impairment was reported conservatively and therefore underestimated for lakes.

Wetlands

In an effort to anticipate and prevent threats to important and vulnerable wetland areas, the EPA has established a "priority wetlands list." The purpose of this list is to identify the most important and most vulnerable wetland areas in order to improve cooperation among federal and state agencies in targeting those resources in most need of protection.

The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions (40 CFR 122.2).

The original priority wetlands list was compiled by EPA Region 10 in 1985 and updated in 1987. The priority list of 149 wetlands in Idaho was assessed by the EPA with input from other agencies for nonpoint source impacts as part of this report. The TAC received copies of the priority wetlands list and were able to provide information on wetlands for the Final Assessment.

Many wetland areas are contiguous with stream segments and/or lakes which were also assessed for nonpoint source impacts. For this report, wetland areas are reported separately, but efforts are underway to assign segment numbers to wetlands in order to correlate information on wetlands to information on contiguous stream segments or lakes. Wetlands are reported by "wetland acres." Of those whose size have been determined, the smallest is Lucille Cave and Spring in Idaho county, 4 acres, and the largest is Camas Creek/Hill City Marsh in Camas and Elmore counties, 200,000 acres.

Groundwater

The major source of information used in compiling the groundwater sections of this report was published reports. Principal contributors, in addition to DEQ, include the Idaho Department of Water Resources, U.S. Geological Survey, the District Health Departments, U.S. Bureau of Reclamation, and the University of Idaho. Considerable data on groundwater quality throughout the state are available in these reports.

To statistically evaluate the state's groundwater quality, the U.S. Geological Survey's WATSTORE data base was used. WATSTORE contains all of the data resulting from USGS studies. For this report, data were analyzed from 1,384 groundwater discharge points (wells and springs) for the period 1975 through 1987. Statistical analyses using SAS were provided by USGS. Data

from other monitoring programs such as the one conducted by the Panhandle District Health Department in the Rathdrum Prairie Aquifer are included through referenced reports.

As in the surface water portion of this report, information on groundwater quality was solicited from interested agencies and associations. Limited contributions were received, hence, the report is based primarily on the previously discussed sources.

Although numerous reports and data files were used in compiling this report, the data are still of somewhat limited value in characterizing individual aquifers. The period of record is generally short and the frequency of analysis is inadequate to establish changes over time. Wells are not always optimally sited to evaluate potential land use impacts. In addition, sampling and analytical methods vary between collecting agencies making data potentially incomparable. For these reasons, discussions of groundwater quality in this report have focused on individual aquifers where possible and have been generalized on a statewide basis where data are more limited.

Another major drawback of the available data is that aquifer data frequently do not allow a specific source of contamination to be determined. For example, studies describe elevated nitrate concentrations but do not distinguish between possible sources such as septic tanks, agricultural chemicals, or feedlots. Thus, the assessment of impacts from potential contaminant sources is hampered by non-specific data.

Because of these limitations in the available data, several qualitative information sources were used to report conditions in Idaho. The first is a ranking of the vulnerability of aquifers to contamination and the second is a ranking of the contamination potential of various land use practices. Lastly, a data base of recorded incidents of contamination was summarized. These sources of information provide the basis for the statewide groundwater overview presented in the results section of this report.

SURFACE WATER OVERVIEW

Statewide Conditions

Idaho has a surface area of 83,600 square miles and a total population of 998,000 (Table 3). The metropolitan areas of Pocatello, Idaho Falls, Twin Falls, Boise, Lewiston, Moscow, and Coeur d'Alene account for approximately one half of the total state population.

Table 3. Background Information.

State population (1987)	1,000,300*
State surface area (square miles)	83,600 sq. mi.
Hydrologic Basins (#)	6 basins
Total designated river miles	7,310 miles
Total assessed river miles	16,146 miles
Names & mileage of border rivers: Snake River	435 miles
Number and area of designated lakes:	
10 > 5,000 acres	362,718 acres
11 < 5,000 acres	15,499 acres
Total assessed lake acres	727,202 acres
Total assessed wetland acres	348,557 acres

* Idaho Department of Commerce

Streams

There are 1,600 stream segments and lakes in the Pacific Northwest Rivers Study (PNRS). All segments were evaluated for fishable and swimmable goal status (Table 4 on page 11). Idaho currently has 241 designated stream segments and lakes in the Idaho Water Quality Standards and Wastewater Treatment Requirements (WQS). These are protected for beneficial uses of domestic water supply, agricultural water supply, cold water biota, warm water biota, salmonid spawning, primary contact recreation, secondary contact recreation, and as special resource waters, in order to preserve certain outstanding or unique characteristics. Not all stream segments are protected for all beneficial uses.

Information for this assessment was reported by PNRS number since this allowed a greater degree of specificity in reporting nonpoint source pollution impacts. The assessment of the status of impacts to beneficial uses is reported based on the evaluation of the TAC of the ability of segments to support a beneficial use. Their perception of the beneficial uses of streams is not correlated to the designated beneficial use status in the WQS, since these protected uses are designated according to the WQS segment numbers.

The fishable and swimmable status of Idaho streams and lakes is based on protected uses designated in the Water Quality Standards. The number of stream miles and lake acres protected for these goals is shown in Table 4.

Table 4. Fishable/Swimmable Goal Status.

	Fishable	Swimmable	Fishable and Swimmable	Special Resource Waters*
Rivers (miles)	5,975	6,120	5,652	3,745
Lakes (acres)	362,718	362,718	362,718	279,250

* Water quality exceeds fishable/swimmable goal

The sources of water quality impacts and additional details on water quality conditions in each basin are summarized in the Surface Water Quality section on page 20. Details on groundwater impacts are provided in the Groundwater Quality section.

Lakes

Idaho has over 2,800 named freshwater lakes covering a total of more than 700,000 surface acres (IDFG, 1988). The types and distribution of lakes range from large, mainstem river reservoirs in southern Idaho, to alpine lakes in the high mountain areas of central Idaho, to developed recreational lakes in the panhandle area.

Lake conditions vary from pristine to overproductive. Most of the reservoirs in Idaho were created to provide agricultural irrigation water. Many are experiencing eutrophication problems due to excessive nutrient and sediment loading from irrigation return flows and agricultural runoff. High alpine lakes are pristine and generally not impacted by human activities. Signs of deteriorating water quality are most notable in the panhandle area lakes. Although few are classified as "eutrophic", there is a strong public perception of deteriorating water quality. Sources of impact are varied. Shoreline development results in impacts from construction, urban runoff, and subsurface sewage disposal. Watershed sources of impact include mining, agriculture, and forest practices.

A total of 727,202 lake acres were assessed for this report. Of the total lake acres assessed, 220,410 were classified as oligotrophic (Figure 1), 407,829 as mesotrophic, and 93,496 as eutrophic. There were 5,467 lake acres assessed where trophic status was not reported.

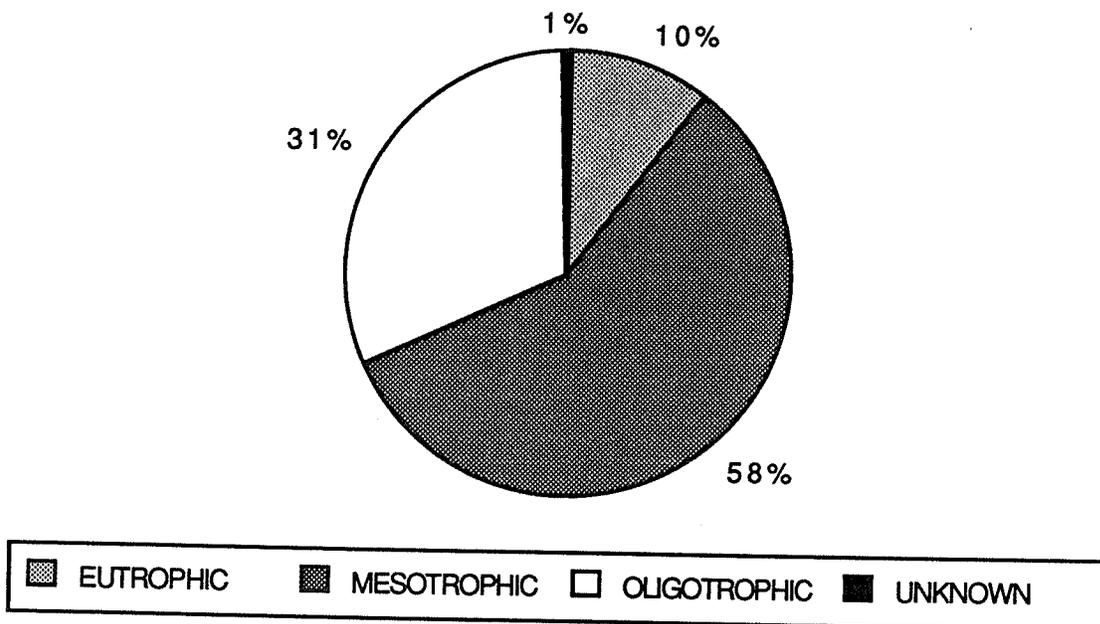


Figure 1. Trophic Status Of Idaho Lakes.

Toxics

Toxic water contaminants have been identified in water bodies in Idaho. These contaminants originate from four general sources. Historic and current mining has caused the pollution of water bodies with an array of heavy metals. Agricultural practices have contaminated waters with heavy metals and pesticides. Treated municipal wastewater discharges are responsible for chlorinated hydrocarbon and untreated toxics. Finally some water courses contain heavy metals which apparently result from the natural mineralization of the drainages. A list of stream segments contaminated by toxics, conventional pollutants, and non-conventional pollutants is provided in Appendix C.

Mining and metal smelting contamination is centered in historic and current mining districts. Among the most affected reaches are the South Fork of the Coeur D' Alene River and the mainstem Coeur D' Alene River. A century of mining and metal volatilization in smelting has contaminated a wide area around the Silver Valley. Other reaches of concern are Blackbird and Panther Creeks below the Blackbird Mines, the East Fork of the South Fork of the Salmon River and its tributaries below the Stibnite District, Monumental Creek and its tributaries, the Middle Fork of the Boise River below Atlanta, Mores Creek and its tributaries near Idaho City, the Bruneau River, and Jordan Creek and its tributaries near Silver City. Mining and associated smelting impacts have contaminated 925 miles of streams and 32,000 acres of lakes.

Agricultural irrigation return flows and runoff contaminated with herbicides, pesticides, and their suspected breakdown products - the heavy metals copper and mercury - have contaminated waters in the agricultural regions of the state. Agricultural districts along the Snake, Teton, Blackfoot, Portneuf, Boise, Payette, Weiser, Clearwater, and Palouse Rivers have contaminated stream reaches. Toxics of agricultural origins have contaminated 300 miles of stream.

Municipal wastewater discharges contaminate some waters with toxics. Other toxics from industry are not at times treated by the facilities. Reaches of the Boise River and its tributaries below the Treasure Valley communities; the Spokane River below Coeur D' Alene; and the Snake River below Idaho Falls, Pocatello, Twin Falls, and Lewiston are contaminated by this class of toxics. Toxics from municipal discharges have impacted 73 miles of stream.

Elevated levels of toxic heavy metals have been detected in a few streams where no obvious human caused contamination is apparent. These contaminants have been ascribed to natural mineralization in these drainages. Reaches of the Malad River and its tributaries and the Bruneau River above Hot Springs have been so identified. Some of the heavy metal contamination in reaches downstream of developed mining centers might also have a part of its source in natural mineralization. Heavy metals from natural mineralization contaminate 170 miles of stream.

GROUNDWATER OVERVIEW

Background on Idaho Aquifers

There are three major aquifer types in Idaho, each characterized by its distinctive geology. A map depicting aquifer geology is shown in Figure 2.

Valley-filled aquifers are unconsolidated sedimentary aquifers in intermountain valleys. They yield sufficient water for domestic use and farming activities. In northern Idaho these aquifers are of glacial outwash with some recent alluvium. The principal aquifer in that area is the Rathdrum Prairie Aquifer. This aquifer has extremely high transmissivities (the ability for groundwater to move), which result in very low drawdown in high-yielding wells.

Basalt aquifers are characterized by numerous basalt flows and thin, interbedded sediments. The principal aquifer of this type, and also the principal aquifer in Idaho, is the eastern Snake Plain Aquifer extending from Ashton to Bliss. This system discharges 6.5 million acre-feet annually to the Snake River (Kjelstrom, 1984). Two smaller basalt aquifers occur in the Lewiston-Moscow area (the Moscow Basin and Lewiston Basin Aquifers) and the Weiser River Basin. Although they have much lower yields than the eastern Snake Plain aquifer, they provide most of the domestic water supply and significant agricultural water for their regions.

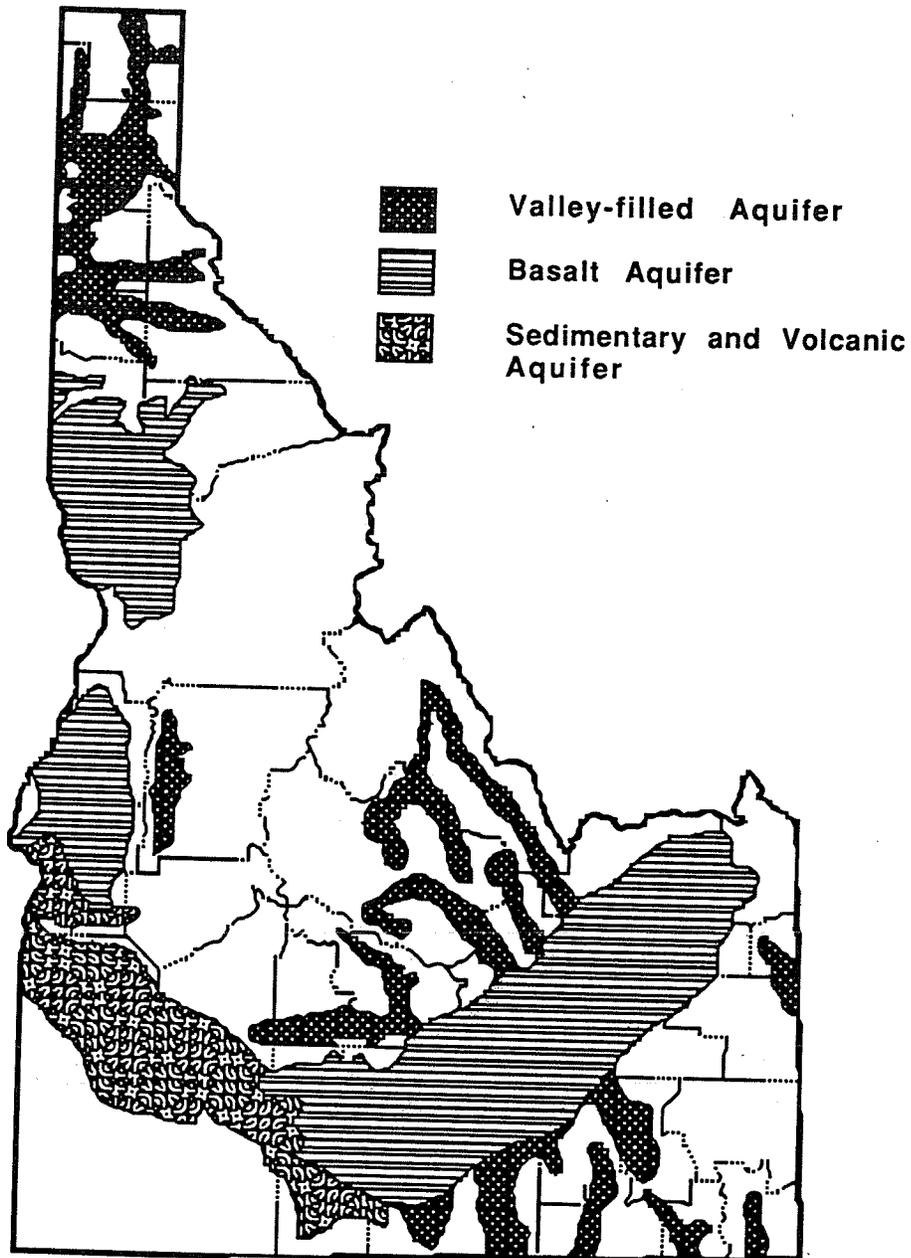


Figure 2. Major Aquifers In Idaho. (Modified from USGS, 1984)

Sedimentary and volcanic aquifers occur chiefly in the western Snake Plain. These aquifers are composed of gravel, sand, silt and clay, interbedded with basalt, shale, and sandstone. Significant geothermal waters are found in these aquifers. Such systems are found in the Boise Valley, Mountain Home, the Payette Valley area, and south of the Snake River.

Groundwater Use

Approximately 6,400 million gallons per day (mgd) of groundwater were withdrawn from Idaho aquifers in 1980 (USGS, 1984). The major use is for irrigation, principally in southern Idaho. The major uses of Idaho's groundwater are shown in Table 5.

Table 5. Major Uses of Idaho Groundwater.

User	Withdrawal, mgd	% of Total
Irrigation	4,100	64
Industrial	2,100	33
Public Domestic	150	2
Rural Domestic	44	0.7
Other (livestock, etc.)	19	0.3

Source: USGS, 1984

Based on the above data, Idaho ranks in the top five states in the U.S. for volume of groundwater used. Idaho also ranks high among the top 10% of the states for percentage of drinking water supplied by groundwater. Over 90% of Idaho's drinking water comes from its aquifers. Obviously groundwater is a tremendously valuable resource in the state.

GROUNDWATER CONDITIONS

Idaho's principal aquifers have been evaluated for potential for contamination by the U.S. Geological Survey (Whitehead and Parlman, 1979). Figure 3 shows the aquifers which this study found to be the most vulnerable to contamination. Factors which were considered in the ranking were population density and groundwater use.

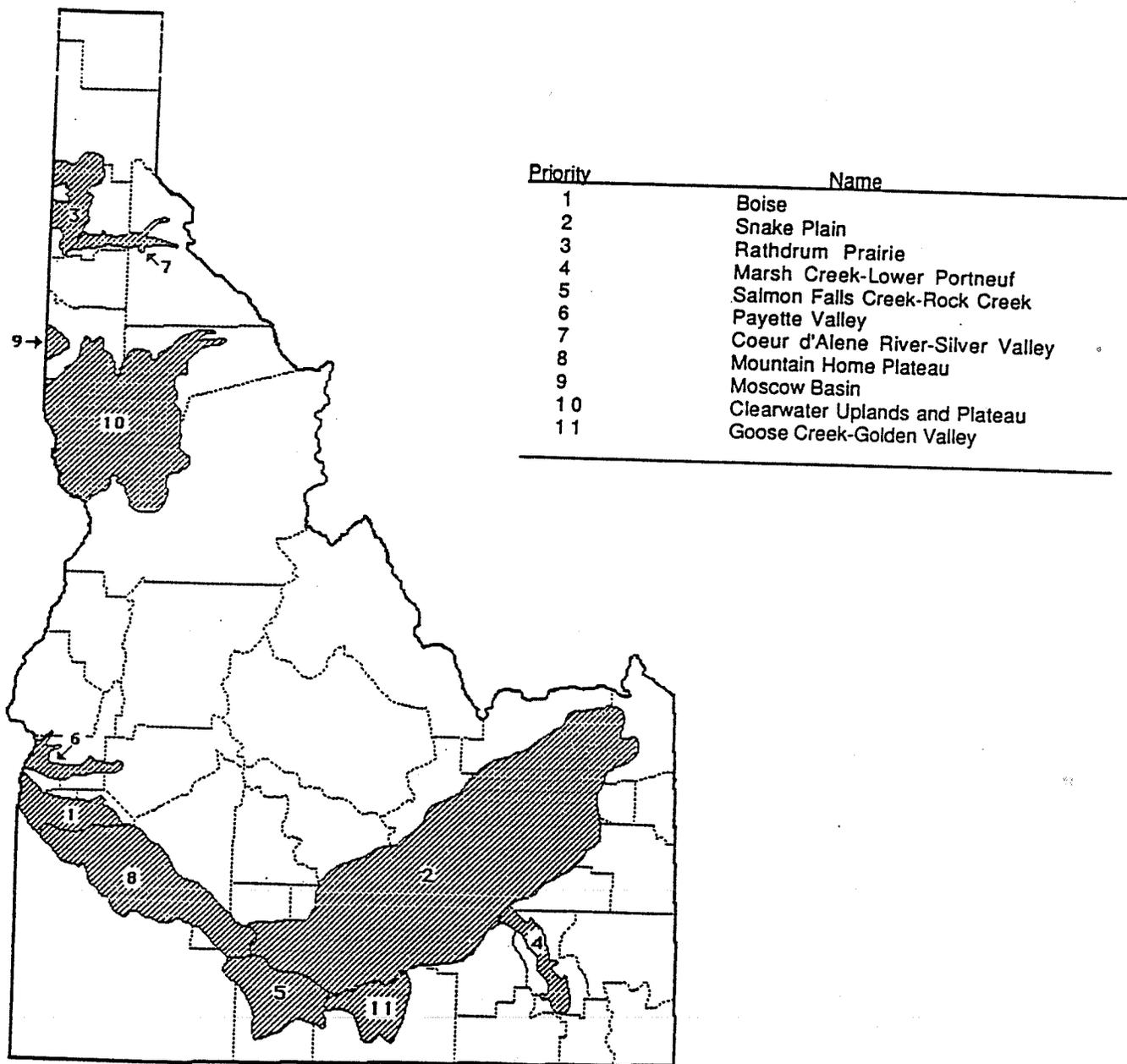
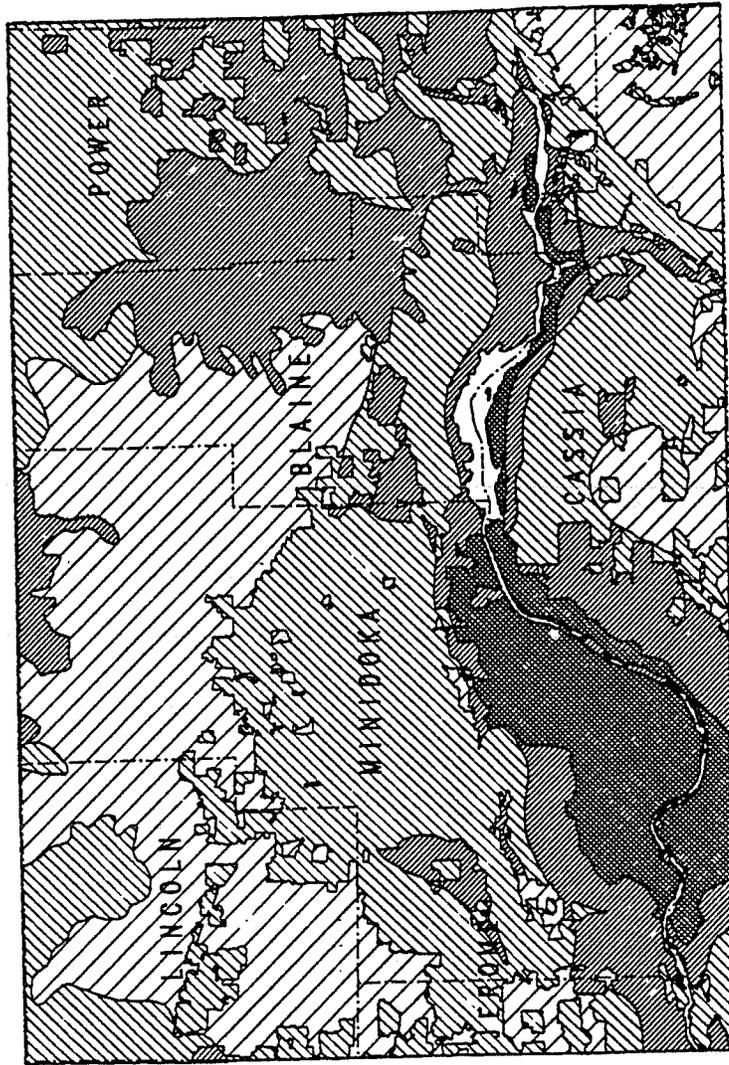


Figure 3. Contamination Potential Rating Of Idaho's Major Aquifers.

Mapping at the scale shown in Figure 3 is useful for determining overall program priorities. Clearly, more detailed mapping is needed to accurately represent the local variability of groundwater vulnerability and to provide needed assistance to the public in tailoring land uses to aquifer sensitivity to contamination. More detailed mapping has been initiated by the Division of Environmental Quality with assistance from Idaho Department of Water Resources, U.S. Geological Survey, and U.S. Soil Conservation Service. An example is shown in Figure 4. For these maps, groundwater vulnerability is based on the depth to the aquifer, the ability of the soil to treat or remove contaminants, and the amount of recharge water available to leach contaminants downward to the aquifer. Mapping at this scale is presently being done for the eastern Snake Plain Aquifer. DEQ's long-term goal is to complete the mapping of other high priority aquifers and to eventually complete the mapping for the entire state.

GROUNDWATER VULNERABILITY RATINGS

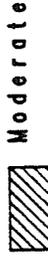
Lake Walcott Quadrangle



Key to ratings



Very low



Moderate

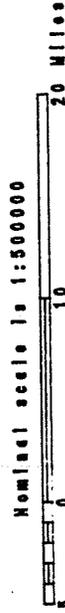


High



Very High

Ratings derived from a model developed by IDWR, USGS, IDHW.
Draft: Sept 1988



Map prepared by:
Idaho Image Analysis Facility
Idaho Department of Water Resources

Figure 4. Example of Groundwater Vulnerability Mapping. (Based on data from U.S. Geological Survey, Idaho Department of Water Resources, Idaho Department of Health and Welfare, and U.S. Soil Conservation Service. Draft: some data are preliminary, not for field purposes.)

Major land use practices in Idaho have also been ranked according to their groundwater pollution potential. Two factors were used in the ranking system. The first was the adequacy of the present regulatory program in place for the land use practice or potential contamination source. Unregulated or unmonitored activities ranked highest in this scheme. The second factor was the relative risk the potential contamination source posed for impacting public health or the environment. Activities which produced contaminants of high toxicity or those which are typically found in areas of high population density were ranked highest. The two factors were ranked on a scale from 1-3, combined as shown below and an overall priority score was assigned to each potential contaminant source (Table 6). The highest priority ranking indicates the land use practice of greatest concern for groundwater contamination.

Table 6. Priority Ranking of Potential Sources of Groundwater Contamination¹

Priority	Potential Source of Contamination	Factor		Score
		Regulatory	Risk	
1	Petroleum handling and storage	2.9	3.0	295
2	Feedlots and dairies	2.8	2.0	243
3	Landfills and hazardous waste disposal sites	2.0	2.8	243
3	Land application of wastewater	2.5	2.3	240
4	Hazardous material handling and use	1.5	3.0	237
5	Pesticide handling and use	2.3	2.3	225
6	Land spreading of septage and sludge	2.3	2.0	215
6	Surface runoff	2.0	2.3	215
6	Pits, ponds, and lagoons	2.3	2.0	215
6	Radioactive substances	2.3	2.0	215
7	Fertilizer application	1.5	2.3	194
8	Septic tank systems	1.8	2.0	191
9	Mining, including oil, and gas drilling	1.5	2.0	177
10	Wells: injection, geothermal, domestic	1.7	1.8	175
11	Silvicultural activities	1.5	1.8	150

¹Modified from The Snake Plain Aquifer Technical Report (IDHW and IDWR, 1985) and Canter and Knox (1985) (pp 281).

²Total score is determined by the formula:
$$\text{Total Score} = \frac{\sqrt{\text{Regulatory}^2 + \text{Risk}^2}}{2} \times 100$$

SURFACE WATER QUALITY

Idaho can be divided into six major hydrologic basins; Bear River, Upper Snake River, Salmon River, Clearwater River, Panhandle, and Southwest (Figure 5). Information gathered for this report was correlated to these hydrologic basins.

BEAR RIVER BASIN

Basin Description

The Bear River Basin is located in the extreme southeast corner of Idaho and is the smallest hydrologic basin in the state (Figure 6). The portion of the Bear River in Idaho is the northernmost drainage of the Great Basin which empties into the Great Salt Lake. The Bear River originates on the northern slopes of the Uinta Mountains in Utah and flows northward through the southwest corner of Wyoming into Idaho. The river continues to flow north in Idaho to Soda Springs, then turns south and reenters Utah near Preston. The Idaho portion of the basin includes Bear Lake, Franklin, and Oneida counties and parts of Power, Bannock, and Caribou counties.

The Bear River drains 2,695 square miles in Idaho. The topography of the basin is characterized by north-south trending valleys and mountains. The vegetation ranges from semi-desert plateau species, to coniferous forests at higher elevations. The climate varies sharply depending on elevation which ranges from about 4,400 feet to 10,500 feet.

Major land uses in the basin are woodland, rangeland, and irrigated and non-irrigated cropland. Most of the woodland is managed by the United States Forest Service; the cropland and the majority of the rangeland are privately owned. Bear Lake, which straddles the Idaho-Utah border, is an important hydrologic feature in the basin. The major economic base in the area is agriculture and associated activities. Principal towns are Montpelier, Soda Springs, Preston, and Malad.

Assessment Procedure

There were 704 stream miles assessed for nonpoint source impacts in this basin. Ambient monitoring data was used to calculate a "Water Quality Index" (WQI) and a "Water Quality Profile" (Table 7 on page 22) on three stream segments in the basin.

Additional information was solicited from the TAC and DEQ and consists of both monitored and evaluated data. For the purposes of this report, monitored data is objective information on current (within the past five years), site-specific ambient conditions. Evaluated data is information other than site-specific ambient data and includes assessments based on chemical or biological information which is older than five years, predictive modeling, surveys and inventories by land management agencies, perception, and best professional judgment by natural resource professionals. The discussion of water quality conditions from assessed information in this basin is based on monitored data for 14 stream miles and evaluated data on 545 stream miles.

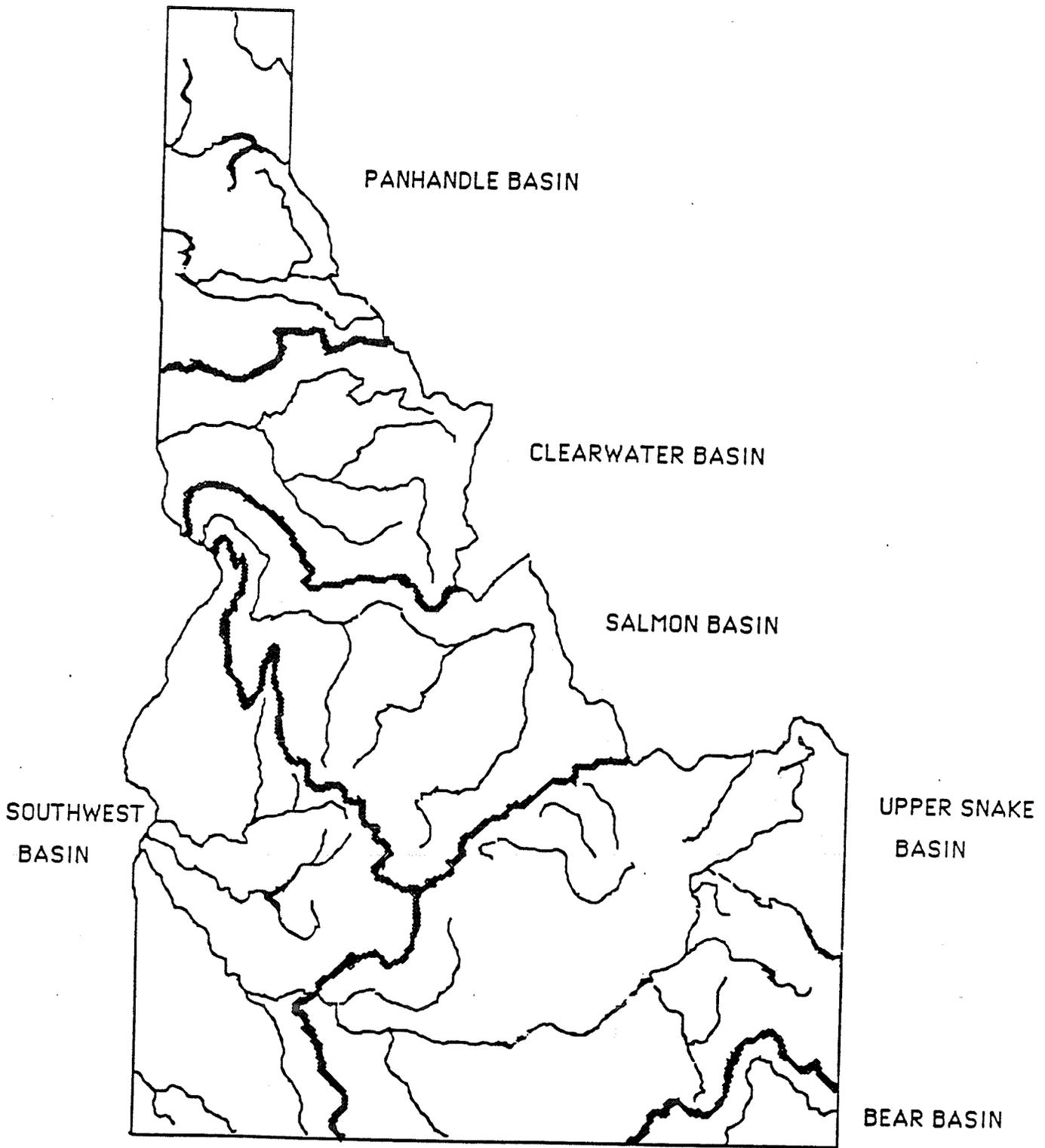


Figure 5. Hydrologic Basins.

BEAR RIVER BASIN

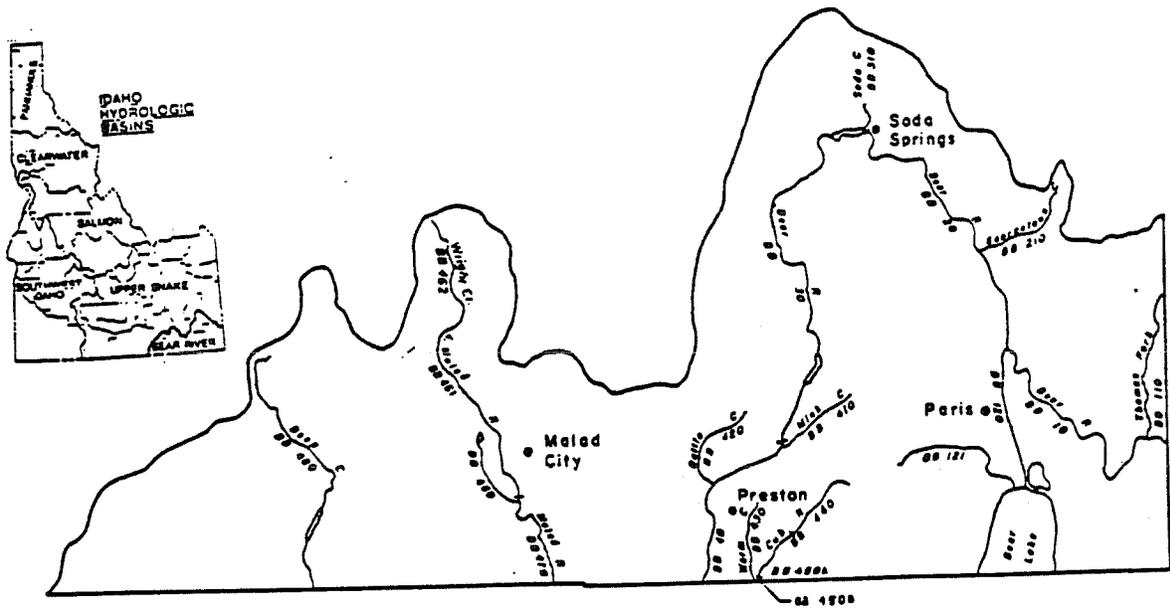


Figure 6. Bear River Basin.

Results - Water Quality Index

The WQI is calculated from ambient data collected at least quarterly in a complete water year during the period of record, October 1982 to October 1987. Table 7 displays the WQI for the monitoring stations located on stream segments in this basin. The "Average WQI" is an average value for each parameter during the period of record. The "Overall Station Conditions" is an average value using all parameters for the period of record, with an average value for the worst three months shown in parentheses. The overall descriptive rating is based on the worst three consecutive months, which is the value shown in parentheses. A more complete description of the calculation of the WQI is included in the section titled "Materials and Methods."

Data from three monitoring stations in the Bear River Basin were used to assess water quality conditions. Results of data analysis are shown in the Bear River Basin Water Quality Profile (Table 7). The quality of the Bear River as it enters Idaho is rated poor. Fair ratings for oxygen, bacteria, aesthetics, and metal toxicity have been observed at the Wyoming border station with a poor rating for sediment. At Soda Springs the Bear River has improved to a fair rating with fair ratings for temperature, bacteria, nutrients, aesthetics, sediment, and metal toxicity. The Bear River near Preston is rated fair with fair ratings for temperature, bacteria, nutrients, and sediment.

Table 7. Bear River Basin Water Quality Profile.

Station: Bear River at WY Line Segment #: BB-10 Storet #: 10039500

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	6	15	good	67	51 (67) poor
Oxygen	27	45	fair	41	
pH	7	11	good	66	
Bacteria	26	46	fair	29	
Trophic Status	11	14	good	50	
Aesthetics	19	31	fair	29	
Solids	44	69	poor	29	
Metal Toxicity	24	30	fair	18	
Ammonia Toxicity	2	4	good	23	

Last Sampled: 9/30/87

Station: Bear River at Soda Springs Segment #: BB-20 Storet #: 151042

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	9	23	fair	12	28 (46) fair
Oxygen	12	20	good	12	
pH	9	10	good	12	
Bacteria	10	23	fair	12	
Trophic Status	21	27	fair	12	
Aesthetics	14	25	fair	12	
Solids	21	40	fair	12	
Metal Toxicity	26	33	fair	12	
Ammonia Toxicity	8	10	good	12	

Last Sampled: 9/06/83

Station: Bear River near Preston Segment #: BB-40 Storet #: 151181

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	11	25	fair	12	24 (40) fair
Oxygen	8	13	good	12	
pH	7	8	good	12	
Bacteria	16	36	fair	12	
Trophic Status	28	32	fair	12	
Aesthetics	9	19	good	12	
Solids	13	21	fair	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	5	9	good	12	

Last Sampled: 9/06/83

Results - Assessed Information

The following discussion of water quality in this basin is based on monitored data for 14 stream miles and evaluated data on 545 stream miles submitted by the TAC and DEQ. This discussion is based upon information separate from the monitored data used to calculate the WQI. The WQI provides a description of water quality conditions from monitored data collected between October 1982 to October 1987. Other monitoring data collected within the last five years and evaluated information were used for this portion of the report.

Submitters who provided information on streams for this report made an assessment of the degree of beneficial use support in streams being impacted by nonpoint source pollution. Beneficial uses were assessed as "not supported," "partially supported," or "potentially at risk" (see definitions in Appendix A). Those streams which were rated "potentially at risk" were presumed by submitters to fully support their beneficial uses but were anticipated to experience some level of beneficial use impairment by nonpoint source pollution in the future. Future impacts could be the result of the cumulative effects of ongoing activities, adverse trends, or the result of anticipated activities.

Bear River Watershed

The Bear River and the Malad River are the major streams in this basin. The portion of the Bear River on the extreme southeastern corner of this basin and its tributaries in this section are impacted by agricultural activities, both irrigated and non-irrigated crop production, runoff from both pastureland and rangeland, and minimal impacts from animal holding areas. The beneficial uses in this section of the Bear River and its tributaries are potentially at risk for the instream beneficial uses of primary and secondary contact recreation. Beneficial uses of cold water biota and salmonid spawning are partially supported or not supported. The primary pollutants in this area are sediment and nutrients from agricultural activities.

On the Idaho border with Wyoming, several streams which are tributaries to the Salt River in Wyoming are impacted by sediment from rangeland activities and stream bank modification. Beneficial uses of cold water biota and salmonid spawning in these streams are partially supported.

As the Bear River approaches the town of Soda Springs, it continues to be impacted by agricultural activities. The impacts to the watershed in this area are primarily from non-irrigated crop production, pastureland, and rangeland. Two tributaries, Paris Creek and Montpelier Creek, have additional impacts from mining activities. In this watershed beneficial uses of primary and secondary contact recreation are potentially at risk. Beneficial uses of cold water biota and salmonid spawning are partially supported or not supported. The primary pollutants in this area are sediment from agriculture, mining, and hydrologic/habitat modification, and nutrients from agriculture.

As the Bear River continues south to the town of Preston, the watershed continues to be impacted by agricultural activities. These include both irrigated and non-irrigated crop production, pastureland, rangeland, and animal holding areas. Two tributaries, Denmore Creek and Cottonwood Creek, are also impacted by forest management activities. There are some impacts in the watershed from hydrologic/habitat modifications. All beneficial uses are supported but cold water biota, salmonid spawning, and primary and secondary contact recreation are potentially at risk. The primary pollutants to the Bear River and its tributaries in this area are sediment and nutrients with some bacteria and stream flow alterations from agricultural activities and hydrologic/habitat modification.

From the town of Preston south to the Idaho-Utah line, the Bear River watershed is impacted by agricultural activities. These include both irrigated and non-irrigated crop production, pastureland, rangeland, and animal holding areas. The Cub River is impacted by agricultural activities of both irrigated and non-irrigated crop production and rangeland, as well as hydrologic/habitat modifications of flow regulation and stream bank modification. These impacts have caused beneficial uses of primary and secondary contact recreation to be potentially at risk in the Bear River watershed and the Cub River. Beneficial uses of cold water biota and salmonid spawning are partially supported. The primary pollutants in this watershed are sediment and nutrients from agricultural activities and sediment from hydrologic/habitat modification.

The portion of the Logan River and its tributaries in Idaho are impacted by sediment from rangeland activities and stream bank modification. Beneficial uses of cold water biota and salmonid spawning are partially supported.

Malad River Watershed

The Malad River originates in the western portion of the Bear River Basin and flows south out of Idaho into Utah. Several major tributaries compose the Malad River watershed, including the Little Malad River, Deep Creek, Devil Creek, Samaria Creek, and Wright Creek.

Wright Creek is the northernmost major tributary of the Malad River. It is impacted primarily by non-irrigated crop production, rangeland, and runoff from mine tailings. These impacts have impaired the beneficial uses in Wright Creek so that cold water biota and salmonid spawning are only partially supported. Secondary contact recreation is potentially at risk. Primary contact recreation is partially supported or potentially at risk. The primary pollutant in Wright Creek from both agricultural activities and mining activities is sediment.

Farther south, the Malad River watershed is impacted by agricultural activities from both irrigated and non-irrigated cropland, and pastureland. Secondary contact recreation is potentially at risk. The primary pollutants in this watershed are sediment and nutrients from agricultural activities and hydrologic/habitat alterations. Additionally, the Little Malad River exhibits low levels of bacteria and beneficial uses of cold water biota and salmonid spawning are

not supported. The Malad River from the town of Pleasantview to the Idaho-Utah line is impacted by sediment from agricultural activities. Beneficial uses of cold water biota and salmonid spawning are not supported.

Deep Creek Watershed

Farther west in the Bear River Basin, another Deep Creek (not the tributary to the Malad River) originates in the northern portion of the basin and flows south into Utah. The Deep Creek watershed is impacted by both irrigated and non-irrigated crop production and grazing. The beneficial uses of cold water biota and salmonid spawning are partially supported or potentially at risk in this watershed; primary and secondary contact recreation are potentially at risk. The primary pollutant in this watershed is sediment from agricultural activities.

Summary Of Nonpoint Source Activities - Streams

There are minimal amounts of point source impacts in this basin compared to the impacts from nonpoint sources; 114 stream miles with point sources and 558 stream miles with nonpoint source impacts (Figure 7).

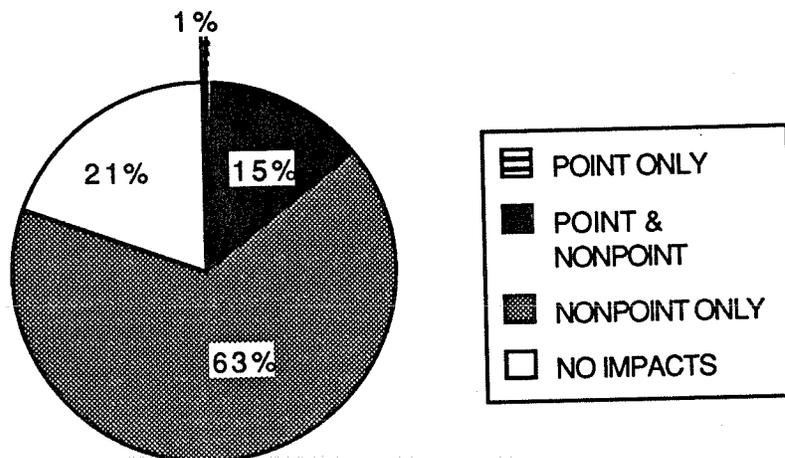


Figure 7. Major Sources of Impacts to Bear River Basin Streams.

Of the 704 stream miles assessed for nonpoint source impacts, 14 stream miles were monitored and 545 were evaluated. The Nonpoint Source Technical Advisory Committee (TAC) reported that the greatest source of impacts in this basin are from agricultural activities (Figure 8); 671 affected stream miles, with 540 stream miles having impacts on beneficial uses (Figure 9). Other sources of impacts are 389 stream miles of hydrologic/habitat modifications, with 447 miles of beneficial uses impacted. Mining activities are impacting 65 stream miles, with 40 miles affecting beneficial uses. Forest practice activities are impacting 7 stream miles with no impacts to beneficial uses. Construction activities are impacting 6 miles with all of these

beneficial uses. Other activities, primarily recreation, impact 150 stream miles with no effect on beneficial uses.

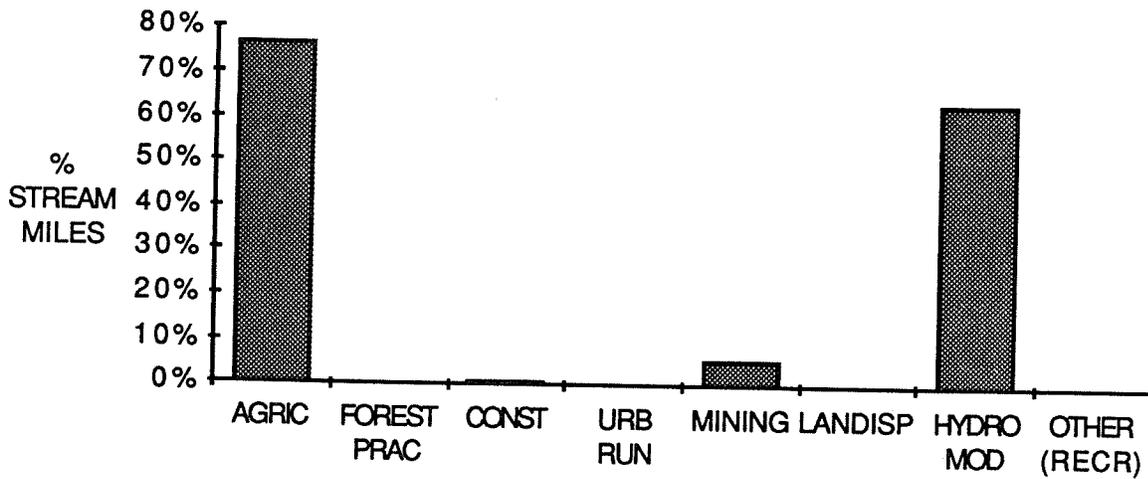


Figure 8. Nonpoint Source Activities Affecting Beneficial Uses in Bear River Basin Streams. (Note: Some hydrologic/habitat modification impacts may occur as secondary impacts in conjunction with other activities, thus some stream miles may be included under hydrologic/habitat modification as well as under another nonpoint source activity.)

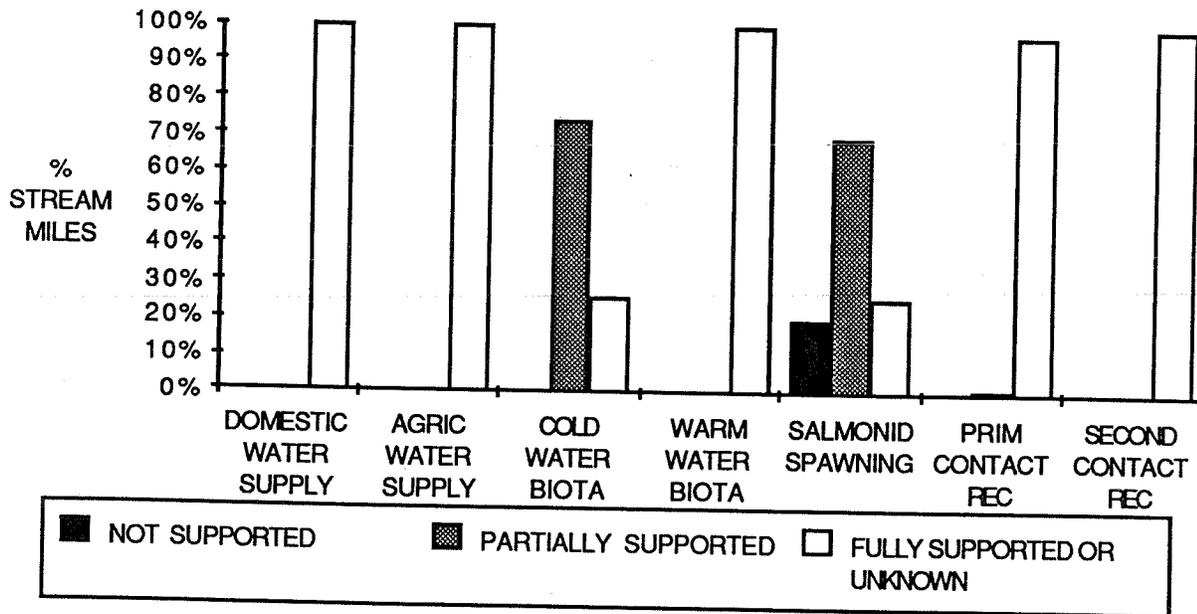


Figure 9. Beneficial Use Support Status in Bear River Basin Streams. (Note: "Fully Supported or Unknown" includes those streams where beneficial uses are specifically designated in Idaho Water Quality Standards or have been determined to exist and are fully supported and those streams for which no information was provided on beneficial use support status).

Point Source Impacts

There are no major municipal or major industrial facilities with NPDES permits to discharge wastewater to streams in this basin. A major municipal facility is one that discharges one million or more gallons of wastewater per day and/or process wastewater for a community of 10,000 or more population. A major industrial facility is classified according to a rating system used by the EPA which considers the volume of wastewater discharged, the volume and flow characteristics of the receiving stream, and the composition of the wastewater being discharged.

Summary of Nonpoint Source Activities - Lakes

Bear Lake is the largest and most important lake in the basin representing 98 percent of the total lake acres assessed (71,955 acres). Although Bear Lake is oligotrophic it has shown a consistent trend toward mesotrophy in the last ten years (BLRC, 1987). Nutrient loads to the lake through the Bear River are in the mesotrophic range. Sources of impacts in this basin are overwhelmingly due to agricultural activities. Although uses are fully supported, Bear Lake supports several endemic species of cold water fish that could become potentially at risk if the degrading trend in water quality continues.

UPPER SNAKE RIVER BASIN

Basin Description

The Upper Snake River Basin is located in southeastern Idaho and is the largest hydrologic basin in the state (Figure 10). The basin includes all the drainages of the Snake River from the Montana and Wyoming border on the east to King Hill which forms the basin boundary west of Twin Falls. The basin covers all of Fremont, Clark, Teton, Madison, Bonneville, Bingham, Jefferson, Power, Butte, Cassia, Minidoka, Twin Falls, Jerome, Gooding, Lincoln, Blaine and Blaine counties and parts of Lemhi, Custer, Camas, Oneida and Caribou counties.

The basin is bordered by mountains on all but the western edge and drains 28,400 square miles. Elevation in the upper parts of the drainage ranges from 12,000 feet in the mountainous areas to 3,500 feet on the Snake River Plain. This plain is characterized by flat to gently sloping topography with basalt flows overlain by wind-deposited silt loam soil.

Due to the wide range of elevations in the basin, a number of distinct climatic conditions exist leading to diverse plant and animal communities. Vegetation varies from semi-desert species in the plateau lowlands to lush coniferous forests in the northern and eastern mountains. The entire area is characterized by hot, dry summers and cold winters, and most of the 10-60 inches of precipitation falls during the winter as snow.

Major tributaries to the Henry's Fork in the northeast portion of the basin are the Teton River, Falls River, and Warm River. Major tributaries to the Snake River from Palisades Dam to the basin boundary at King Hill are the Blackfoot River, Portneuf River, Bannock Creek, Marsh Creek, Rock Creek, Raft River, Goose Creek, Salmon Falls Creek, and the Big Wood River. An unusual hydrologic feature occurs in the Arco area where the Big Lost River, Little Lost River, and other streams disappear into the desert surface. These streams percolate into the ground and feed the Snake River Plain Aquifer which discharges to the Snake River in the Thousand Springs area near Hagerman. These springs are important in recharging the Snake River.

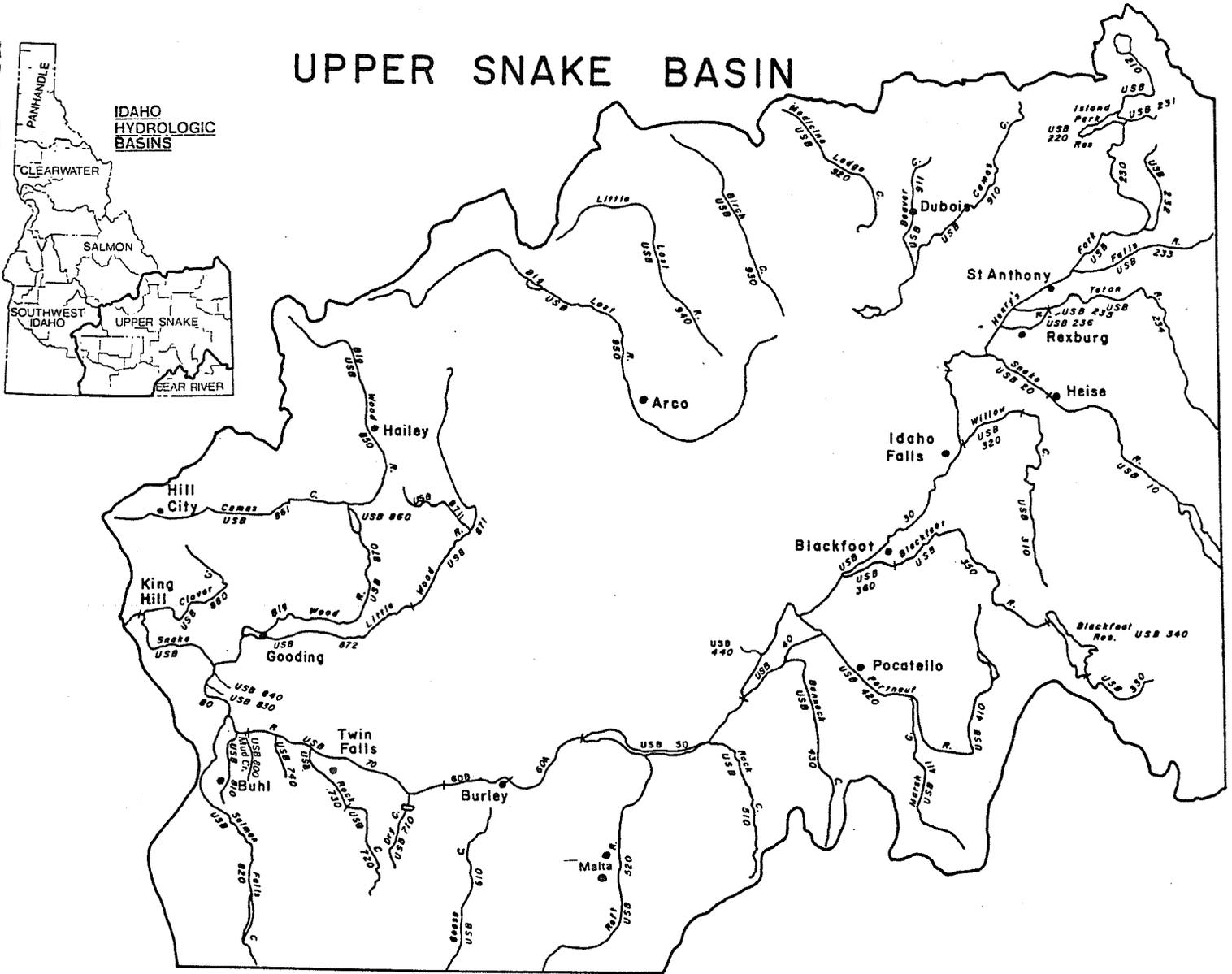


Figure 10. Upper Snake River Basin.

The major urban areas in this basin are Idaho Falls, Pocatello, and Twin Falls. The regional economy is supported largely by agricultural production and food processing. Hay, grain, potatoes, and sugar beets are the principal crops produced on the irrigated crop lands, while wheat is the major dryland crop. Livestock grazing is an important industry which utilizes the extensive rangelands in the basin. The Department of Energy employs a large number of people at the Idaho National Engineering Laboratory located near Arco.

Assessment Procedure

There were 5,732 stream miles assessed for nonpoint source impacts in this basin. Ambient monitoring data was used to calculate a "Water Quality Index" (WQI) and a "Water Quality Profile" (Table 8) on 7 stream segments in the basin.

Additional information was solicited from the TAC and DEQ and consists of both monitored and evaluated data. For the purposes of this report, monitored data is objective information of current (within the past five years) site-specific ambient conditions. Evaluated data is information other than site-specific ambient data and includes assessments based on chemical or biological information which is older than five years, predictive modeling, surveys and inventories by land management agencies, perception, and best professional judgment by natural resource professionals. The discussion of water quality conditions from assessed information in this basin is based on monitored data on 881 stream miles and evaluated data on 1,677 stream miles.

Results - Water Quality Index

The WQI is calculated from ambient data collected at least quarterly in a complete water year during the period of record, October 1982 to October 1987. Table 8 displays the WQI for the monitoring stations located on stream segments in this basin. The "Average WQI" is an average value for each parameter during the period of record. The "Overall Station Conditions" is an average value using all parameters for the period of record, with an average value for the worst three months shown in parentheses. The overall descriptive rating is based on the worst three consecutive months, which is the value shown in parentheses. A more complete description of the calculation of the WQI is included in the section titled "Materials and Methods."

Data from eleven monitoring stations in the Upper Snake Basin were used in assessing current water quality conditions. Results of data analysis are shown in the Upper Snake River Basin Water Quality Profile (Table 8).

Data from monitoring stations indicates that Snake River water quality, as it enters Idaho at Heise, is rated good although sedimentation and metal toxicity are rated fair. As the Snake leaves the basin at King Hill, conditions deteriorate to fair.

There are several major tributaries to the Snake River in this basin that significantly contribute to stream conditions. Henry's Fork contributes excessive bacteria, nutrients, and sediment and has reduced oxygen. The Snake River at Menan is rated good.

Water quality conditions in the Blackfoot River near Blackfoot are rated fair. Elevated summer temperatures and high bacteria, nutrients, sediment, and metals concentrations as well as only fair pH and aesthetics contribute to the overall rating.

Water quality conditions at the Snake River below Blackfoot reflect tributary impacts. This station is located downstream of the Blackfoot River confluence and experiences elevated temperatures and increased bacteria, nutrients, sediment, and metals concentrations.

Table 8. Upper Snake River Basin Water Quality Profile.

Station: Snake River near Heise Segment #: USB-10 Storet #: 13037500

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	2	6	good	48	15 (21) good
Oxygen	4	7	good	25	
pH	8	9	good	25	
Bacteria	8	13	good	26	
Trophic Status	8	11	good	24	
Aesthetics	4	11	good	24	
Solids	14	28	fair	18	
Metal Toxicity	24	26	fair	16	
Ammonia Toxicity	2	3	good	24	

Last Sampled: 9/30/87

Station: Henrys Fork near Rexburg Segment #: USB-230 Storet #: 151105

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	9	18	good	12	18 (30) fair
Oxygen	16	37	fair	12	
pH	8	9	good	12	
Bacteria	12	26	fair	12	
Trophic Status	16	22	fair	12	
Aesthetics	1	2	good	11	
Solids	11	21	fair	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	4	8	good	12	

Last Sampled: 9/07/83

Station: Snake River at Menan Segment #: USB-20 Storet #: 151182

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	8	16	good	12	10 (13) good
Oxygen	8	15	good	12	
pH	8	10	good	12	
Bacteria	8	18	good	12	
Trophic Status	13	19	good	12	
Aesthetics	1	3	good	11	
Solids	8	16	good	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	3	7	good	12	

Last Sampled: 9/07/87

Station: Blackfoot River near Blackfoot Segment #: USB-360 Storet #: 151130

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	11	30	fair	12	40 (59) fair
Oxygen	7	13	good	12	
pH	19	42	fair	12	
Bacteria	20	39	fair	11	
Trophic Status	21	33	fair	12	
Aesthetics	18	41	fair	12	
Solids	28	49	fair	12	
Metal Toxicity	27	41	fair	12	
Ammonia Toxicity	11	20	good	12	

Last Sampled: 9/07/83

Station: Snake River below Blackfoot Segment #: USB-30 Storet #: 151102

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	10	28	fair	12	27 (52) fair
Oxygen	6	12	good	11	
pH	9	11	good	12	
Bacteria	12	29	fair	12	
Trophic Status	15	21	fair	12	
Aesthetics	8	16	good	12	
Solids	16	29	fair	12	
Metal Toxicity	32	47	fair	12	
Ammonia Toxicity	4	10	good	12	

Last Sampled: 9/07/83

Station: Portneuf R. at Siphon Rd Segment #: USB-420 Storet #: 151109

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	10	17	good	12	60 (72) poor
Oxygen	18	24	fair	12	
pH	6	8	good	12	
Bacteria	20	43	fair	12	
Trophic Status	61	75	poor	12	
Aesthetics	10	16	good	12	
Solids	29	41	fair	12	
Metal Toxicity	24	29	fair	12	
Ammonia Toxicity	15	18	good	12	

Last Sampled: 9/7/83

Station: Snake River at Burley Segment #: USB-60A Storet #: 151183

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	22	fair	12	15 (23) fair
Oxygen	3	5	good	12	
pH	6	9	good	12	
Bacteria	6	17	good	12	
Trophic Status	20	29	fair	12	
Aesthetics	8	15	good	12	
Solids	9	13	good	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	4	9	good	12	

Last Sampled: 9/19/83

Station: Rock Creek at mouth nr Twin Falls Segment #: USB-730 Storet #: 2060146

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	5	15	good	42	46 (79) poor
Oxygen	9	13	good	41	
pH	7	8	good	47	
Bacteria	19	35	fair	80	
Trophic Status	39	47	fair	72	
Aesthetics	17	27	fair	45	
Solids	38	61	fair	82	
Metal Toxicity	18	23	fair	45	
Ammonia Toxicity	4	8	good	21	

Last Sampled: 9/28/87

Station: Salmon Falls Creek above mouth Segment #: USB-820 Storet #: 151057

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	12	24	fair	16	26 (44) fair
Oxygen	9	14	good	16	
pH	6	7	good	16	
Bacteria	19	40	fair	12	
Trophic Status	24	33	fair	12	
Aesthetics	7	14	good	12	
Solids	19	30	fair	12	
Metal Toxicity	22	28	fair	13	
Ammonia Toxicity	3	5	good	12	

Last Sampled: 12/13/84

Station: Snake River at King Hill Segment #: USB-80 Storet #: 13154500

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	17	good	25	20 (23) fair
Oxygen	4	6	good	24	
pH	9	10	good	25	
Bacteria	6	9	good	24	
Trophic Status	21	25	fair	23	
Aesthetics	6	10	good	24	
Solids	19	23	fair	24	
Metal Toxicity	24	26	fair	15	
Ammonia Toxicity	6	10	good	25	

Last Sampled: 9/30/87

Station: Malad River above Malad Canyon Segment #: USB-870 Storet #: 151169

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	6	22	fair	12	23 (38) fair
Oxygen	3	7	good	12	
pH	7	9	good	12	
Bacteria	20	39	fair	12	
Trophic Status	19	37	fair	12	
Aesthetics	9	16	good	12	
Solids	15	23	fair	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	4	7	good	12	

Last Sampled: 9/19/83

The Portneuf River is another major tributary to the Snake River and flows into American Falls Reservoir. Water quality of the Portneuf is poor due to excessive bacteria, nutrients, sediment, and metals. There has been a reduction in nutrients due in part to the elimination of the Pocatello sewage treatment plant discharge into the river in the summer, although there are several industrial plants discharging into the river. Conditions in the Snake River at Burley have an overall fair rating due to high temperatures and nutrients.

There are three major tributaries flowing into the Snake River below Burley that have been monitored. Rock Creek near Twin Falls, rated poor, experiences elevated nutrients, bacteria, sediment, and metals with a fair rating for aesthetics. Salmon Falls Creek, the second tributary to this main Snake segment, is rated fair. Pollutants of concern include elevated temperatures, bacteria, nutrients, sediment, and metals. The Malad River above Malad Canyon is rated fair with elevated temperature, bacteria, nutrients, and sediment. Water quality conditions of the Snake River at King Hill as it leaves the Upper Snake Basin are fair with excessive nutrients, sediment, and metal toxicity impacting water quality.

Results - Assessed Information

The following discussion of water quality in this basin is based on monitored data for 881 stream miles and evaluated data on 1,677 stream miles submitted by the TAC and DEQ. This discussion is based upon information separate from the monitored data used to calculate the WQI. The WQI provides a description of water quality conditions from monitored data collected between October 1982 to October 1987. Other monitoring data collected within the last five years and evaluated information were used for this portion of the report.

Submitters who provided information on streams for this report made an assessment of the degree of beneficial use support in streams being impacted by nonpoint source pollution. Beneficial uses were assessed as "not supported," "partially supported," or "potentially at risk" (see definitions in Appendix A). Those streams which were rated "potentially at risk" were presumed by submitters to fully support their beneficial uses but were anticipated to experience some level of beneficial use impairment by nonpoint source pollution in the future. Future impacts could be the result of the cumulative effects of ongoing activities, adverse trends, or the result of anticipated activities.

Henry's Fork Watershed

In the far northeastern corner of the Upper Snake Basin is the Henry's Fork watershed, including Henry's Lake and Island Park Reservoir. Primary nonpoint source impacts to this watershed are from agricultural activities including irrigated crop production, pastureland, rangeland, and minimal amounts of non-irrigated crop production. There are additional impacts from forest practices on-site wastewater systems, channelization, riparian vegetation removal, streambank modification, and flow modification.

Cold water biota and salmonid spawning are only partially supported in most of the tributaries to Henry's Fork, and in Henry's Lake Outlet. Other beneficial uses of primary and secondary contact recreation are potentially at risk. In Henry's Lake, Henry's Fork, Island Park Reservoir, and the Buffalo River, the status of beneficial use support was not reported. Howard Creek, flowing into Henry's Lake, does not support beneficial uses of cold water biota and salmonid spawning. Sheridan Creek, flowing into Island Park Reservoir, only partially supports uses of cold water biota and salmonid spawning. The primary pollutants in this watershed are sediment and nutrients from agricultural activities. Flow alteration, thermal modification, and other habitat alterations also occur. There is also some nutrient and organic enrichment in Elk Creek, a tributary to the Buffalo River, from on-site wastewater systems.

As the Henry's Fork proceeds south, it is joined by the Falls, Teton, and Warm Rivers. These watersheds are impacted by both irrigated and non-irrigated crop production, pastureland, rangeland, animal holding areas, and riparian vegetation removal. In the watershed of this portion of Henry's Fork and in the Warm River watershed, beneficial uses of cold water biota and salmonid spawning range from not supported to partially supported or potentially at risk. Beneficial use support status in the Falls River watershed was not reported.

The primary pollutants in the Henry's Fork and Warm River watersheds are sediment from agricultural activities and hydrologic/habitat modifications, nutrients and bacteria from agricultural activities and wastewater systems, and flow alteration from hydrologic/habitat modification.

Porcupine Creek, a tributary to the Warm River, partially supports cold water biota and salmonid spawning. The beneficial uses in the Warm River and its other tributaries was not reported. Conant Creek, a tributary to the Falls River, partially supports beneficial uses of cold water biota and salmonid spawning.

Teton River Watershed

The Teton River enters Idaho from Wyoming and divides into the North and South Forks before emptying into Henry's Fork. The Teton River watershed, above its divergence, is primarily impacted by irrigated and non-irrigated crop production, rangeland activities, channelization, dam construction, and riparian vegetation removal. Tributaries to this portion of the Teton are primarily impacted by pastureland, dam construction, flow modification, riparian vegetation removal, and streambank modification. In the Teton River from Trail Creek to Highway 33 and its tributaries, beneficial uses of cold water biota and salmonid spawning are partially supported.

In the Teton River from Bitch Creek to the Teton Dam site and its tributaries, the beneficial uses of cold water biota and salmonid spawning range from not supported to partially supported. Primary and secondary contact recreation are potentially at risk. The status of the support of beneficial uses in all other sections of the Teton River above its divergence was not reported. The primary pollutant in the Teton River watershed is sediment from agricultural impacts and hydrologic/ modification. Additional pollutants are thermal modification and flow alteration due to hydrologic/habitat modification.

After the Teton River diverges into its North and South Forks, agricultural impacts from irrigated crop production, pastureland, and rangeland are the primary sources of nonpoint source pollution. Non-irrigated crop production and some animal holding areas contribute additional nonpoint source impacts, primarily from channelization of streams. Beneficial uses of primary and secondary contact recreation are potentially at risk. The primary pollutants from nonpoint source activities are nutrients, sediment, and bacteria from agriculture. Beneficial uses of cold water biota and salmonid spawning are partially supported in this watershed.

Snake River - South Fork Watershed

The South Fork of the Snake River and Henry's Fork combine to form the Snake River. The South Fork watershed, as well as Palisades Reservoir, are impacted by agricultural runoff from crop production utilizing both irrigated and non-irrigated methods. Channelization of streams and associated riparian vegetation removal have caused impacts to streams in this watershed from agricultural activities and from lands used for rangeland and pastureland. Beneficial uses potentially at risk in this watershed are primary and secondary contact recreation. Beneficial use support for cold water biota and salmonid spawning range from partially supported or not supported to potentially at risk. The status of beneficial uses in Palisades Reservoir and the South Fork of the Snake River from Palisades Dam to its confluence with the Snake River is unknown. The primary pollutants in the South Fork watershed are sediment from agricultural activities and hydrologic/habitat modification, and flow alteration from hydrologic/habitat modification.

Snake River - South Fork to American Falls Reservoir

The Snake River flows south from its confluence with the South Fork to its confluence with the Blackfoot River. In this reach the Snake river watershed is primarily impacted by activities related to irrigated and non-irrigated crop production, rangeland, and pastureland. These activities have led to flow modification, riparian vegetation removal, and streambank modification in the watershed. Beneficial uses in the Snake from the South Fork to the Ferry Butte summit and its tributaries range from partially supported or not supported to potentially at risk for cold water biota and salmonid spawning. Beneficial uses are potentially at risk for primary and secondary contact recreation. Beneficial uses in the Snake River from Ferry Butte to the American Falls Reservoir range from partially supported to not supported for cold water

biota and salmonid spawning. Primary pollutants in the Snake River from its confluence with the South Fork to the American Falls Reservoir are sediment from agricultural activities, urban runoff, and hydrologic/habitat modification, as well as thermal modification and flow alteration from hydrologic/habitat modification.

American Falls Reservoir on the Snake River is also impacted by irrigated and non-irrigated crop production, rangeland, and pastureland. Beneficial uses in the reservoir range from not supported to potentially at risk for cold water biota, and are not supported for salmonid spawning. Additional uses potentially at risk are primary and secondary contact recreation. Primary pollutants in the reservoir are sediment and organic enrichment due to agricultural activities.

Willow Creek and Blackfoot River Watersheds

Willow Creek and the Blackfoot River are major tributaries to this portion of the Snake River. The Willow Creek watershed including Ririe Reservoir and Gray's Lake Outlet is reported to be impacted primarily by runoff from non-irrigated crop production, rangeland, and pastureland, and some forest practice activities. These activities have led to channelization of Willow Creek and most of its tributaries. In this watershed, cold water biota and salmonid spawning have varied assessments ranging from not supported or partially supported to potentially at risk. Beneficial uses of primary and secondary contact recreation are potentially at risk. The primary pollutants in this watershed are sediment and nutrients from agricultural activities and thermal modification from hydrologic/habitat modification.

The Blackfoot River watershed has experienced channelization and streambank modification from activities related to irrigated and non-irrigated crop production, rangeland, and pastureland, with some impacts from animal holding areas.

Beneficial uses potentially at risk in this watershed are primary and secondary contact recreation. Beneficial uses of cold water biota and salmonid spawning are partially supported or not supported. The primary pollutants in the Blackfoot River watershed are sediment and nutrients from agricultural activities, hydrologic/habitat modification, and road maintenance. Bacteria is also an additional pollutant from agricultural activities.

Portneuf River Watershed

The Portneuf River and Bannock Creek empty into the American Falls Reservoir. Portions of these streams and many of their tributaries are on the Fort Hall Indian Reservation. Irrigated and non-irrigated crop production, rangeland, and pastureland in the upper Portneuf watershed (above its confluence with Marsh Creek.) have caused channelization, riparian vegetation removal and flow modification. Road construction and maintenance have caused additional nonpoint source impacts. Primary and secondary contact recreation are beneficial uses in this watershed that are potentially at risk. Beneficial uses of cold water biota and salmonid spawning range from potentially at risk to not supported or partially supported. The primary pollutants in the upper Portneuf watershed are sediment, nutrients, and bacteria from agricultural activities and hydrologic/habitat modification. There is some flow alteration from hydrologic/habitat and from nutrients and bacteria caused by agricultural activities. In Chesterfield Reservoir, pollutants are primarily sediment and bacteria from agriculture. Irrigated and non-irrigated crop production, rangeland, and pastureland surrounding Marsh Creek and its tributaries have led to riparian vegetation removal and streambank modification. Beneficial uses in the Marsh Creek watershed range from not supported or partially supported, to potentially at risk for cold water biota and salmonid spawning. Uses are potentially at risk for primary and secondary contact recreation.

The lower Portneuf River watershed, below the confluence with Marsh Creek, is primarily impacted by irrigated and non-irrigated crop production, rangeland, and construction activities with some impacts from pastureland, urban runoff, channelization, and riparian vegetation removal. Beneficial uses in this watershed are potentially at risk for primary and secondary contact recreation. Uses range from not supported or partially supported to potentially at risk for cold water biota and salmonid spawning. The pollutants of concern in the Lower Portneuf watershed are nutrients and bacteria from agricultural activities, sediment, construction activities, urban runoff, and hydrologic/habitat modification.

The Bannock Creek watershed is primarily impacted by runoff from rangeland and irrigated and non-irrigated crop production. Beneficial uses in this watershed range from not supported or partially supported to potentially at risk for cold water biota and salmonid spawning. These uses are partially supported or potentially at risk for primary contact recreation. The primary pollutants in the Bannock Creek watershed are sediment, nutrients, and bacteria from agricultural activities.

Snake River - American Falls Reservoir to Lake Walcott

The Snake River between American Falls Reservoir and Lake Walcott is impacted by runoff from irrigated and non-irrigated crop production, rangeland activities, with some impacts from road or bridge construction activities. Lake Walcott is primarily impacted by irrigated and non-irrigated crop production, animal holding areas, and flow modification. In the Snake River between Massacre Rocks and Lake Walcott, beneficial uses are not supported for domestic water supply or primary contact recreation and are potentially at risk for cold water biota and secondary contact recreation. In the Snake River between American Falls and Massacre Rocks beneficial use of cold water biota ranges from not supported to partially supported, while salmonid spawning is not supported. In Lake Walcott, the beneficial uses of cold water biota, salmonid spawning, and primary and secondary contact recreation are potentially at risk. The primary pollutants in this section of the Snake are sediment, organic enrichment, bacteria, nutrients and pesticides from agricultural activities, and flow alteration from hydrologic/habitat modifications.

Rock Creek and Raft River Watersheds

Two major tributaries to this section of the Snake River are Rock Creek and the Raft River. The Rock Creek and Raft River watersheds are primarily impacted by irrigated and non-irrigated crop production and rangeland. Development activities near the Raft River from road or bridge construction and land development have caused channelization, flow modification, riparian vegetation removal, and streambank modification. The Raft River is extensively diverted for irrigation. Feedlots located in this area have contributed to the problems. Sublett Creek and Reservoir are impacted by non-irrigated crop production, rangeland, feedlots, flow modification, and streambank modification.

Primary contact recreation is potentially at risk in Rock Creek. Domestic water supply use is partially supported in the Raft River. In both Rock Creek and the Raft River, secondary contact recreation ranges from partially supported to potentially at risk. Cold water biota and salmonid spawning range from partially supported or not supported to potentially at risk. In both Sublett Creek and Reservoir, cold water biota and secondary contact recreation are potentially at risk, while salmonid spawning is not supported. Primary contact recreation is not supported in the Raft River. The primary pollutants in the Rock Creek, Raft River, and Sublett Creek watersheds are sediment, nutrients, organic enrichment, bacteria, salinity, and thermal modification from agricultural activities, as well as sediment and flow alteration from hydrologic/habitat modifications.

Snake River - Lake Walcott to Oakley Reservoir

The Snake River from Lake Walcott to Oakley Reservoir and its watershed are primarily impacted by irrigated crop production, rangeland, pastureland, feedlots, and flow modification. This section of the Snake River includes Milner Reservoir which is also impacted by these activities as well as dredging and streambank modification. Oakley Reservoir and major streams flowing into it are impacted by irrigated and non-irrigated crop production, rangeland, animal holding areas, surface mining, channelization, riparian vegetation removal, and streambank modification. Beneficial uses in the Snake between Minidoka Dam and Milner Dam, and parts of its watershed are potentially at risk for agricultural water supply.

Beneficial uses are partially supported or potentially at risk for cold water biota and salmonid spawning. Primary contact recreation ranges from not supported to partially supported, while secondary contact recreation is not supported or potentially at risk. Beneficial uses in Oakley Reservoir are potentially at risk for agricultural water supply, cold water biota, salmonid spawning, and primary and secondary contact recreation. In tributaries flowing into Oakley Reservoir, cold water biota and primary and secondary contact recreation are partially supported or potentially at risk. In these tributaries, agricultural water supply and salmonid spawning are partially supported or potentially at risk. Primary pollutants in these watersheds are sediment, nutrients, bacteria, organic enrichment and ammonia from agricultural activities. Sediment, thermal modification, and flow alterations have resulted from the hydrologic/habitat modifications. Oil and grease from petroleum tanks and leaks from these sources are also impacting streams in this area.

Snake River - Twin Falls Reservoir to Bliss Reservoir

Twin Falls Reservoir and Shoshone Falls Reservoir, impoundments of the Snake River, are exhibiting nonpoint source impacts from irrigated crop production and animal holding areas. Beneficial uses are potentially at risk for agricultural water supply, cold water biota, and primary and secondary contact recreation. Salmonid spawning is not supported or potentially at risk. The primary pollutants in these reservoirs are sediment, nutrients, bacteria, organic enrichment, and ammonia from agricultural activities, as well as flow alteration from hydrologic/habitat modifications.

The Snake River between Shoshone Falls and the Bliss Reservoir, and its tributaries, as well as the impoundments of the Upper and Lower Salmon Falls Reservoirs, are impacted by runoff from irrigated crop production, rangeland, pastureland, animal holding areas, feedlots, dredging, and flow modification. This watershed is also impacted by urban runoff from combined sewers and surface runoff, some construction and surface mining, and land development. Springs in this area - Crystal, Niagara, and Clear - are exhibiting flow modification and streambank modification from activities related to irrigated crop production, construction, land development, urban runoff, and other contaminants. In this section of the Snake River and its tributary springs, beneficial uses are potentially at risk for domestic water supply, agricultural water supply and secondary contact recreation. Beneficial uses were reported as ranging from supported or partially supported to potentially at risk for primary contact recreation, cold water biota, and salmonid spawning. The primary pollutants in this watershed are nutrients, sediment, organic enrichment, bacteria, and ammonia from agricultural activities. Flow alteration from hydrologic/habitat modifications also impacts streams in this watershed. Springs in this area are impacted by sediment, nutrients and organic enrichment from agricultural activities, as well as organic enrichment, nutrients, and flow alteration from urban runoff and hydrologic/habitat modifications.

Flowing into this section of the Snake are Cedar Draw, Blind Canyon, Box Canyon, Sand Springs, Thousand Springs, Mud, Deep, Riley and Billingsley creeks. These creeks are all impacted by

runoff from irrigated crop production, rangeland, and pastureland which have caused flow modification, riparian vegetation removal, and streambank modification. Riley and Billingsley Creeks are also impacted by land development activities and several fish hatcheries. Riley and Billingsley creeks are potentially at risk for the beneficial use of domestic water supply and partially support primary contact recreation. Billingsley Creek partially supports cold water biota and salmonid spawning. Lower White Springs is impacted by fish hatcheries as well. Beneficial uses in Lower White Springs, Sand Spring Creek, and Box Canyon Creek are potentially at risk for cold water biota. Beneficial uses in other tributaries are potentially at risk for agricultural water supply and secondary contact recreation, and range from partially supported to potentially at risk for salmonid spawning and primary contact recreation.

Rock Creek is a major tributary to this section of the Snake. In Rock Creek and its watershed, nonpoint source impacts result from irrigated crop production, feedlots, pastureland, and rangeland, with some impacts from storm sewer runoff, animal holding areas, streambank modification, and flow regulation. Beneficial uses of agricultural water supply and secondary contact recreation are potentially at risk. Primary pollutants in this watershed are nutrients, sediment, bacteria, ammonia, and organic enrichment from agricultural activities. Sediment and oil and grease from urban runoff also occur. Streams in this watershed are also impacted by flow alteration from hydrologic/habitat modification.

Snake River - Bliss Reservoir to King Hill Dam

The Snake River between Bliss Reservoir and King Hill Dam is primarily impacted by irrigated crop production, rangeland, flow modification, and streambank modification. Tributaries flowing into this section of the Snake from the south are impacted by irrigated crop production, pastureland, rangeland, flow regulation, removal of riparian vegetation, and streambank modification, with some impacts from specialty crop production, feedlots, and animal holding areas. In this section of the Snake River, beneficial uses are potentially at risk for cold water biota and secondary contact recreation. Primary contact recreation ranges from not supported to partially supported. In this section of the Snake, beneficial uses of agricultural water supply and secondary contact recreation range from potentially at risk to partially supported. Uses of cold water biota, salmonid spawning, and primary contact recreation range from potentially at risk to partially supported or not supported. Primary pollutants in this section of the Snake and its watershed are sediment, nutrients, bacteria, organic enrichment, thermal modification, ammonia, and flow alteration from agricultural activities. Hydrologic/habitat modifications have caused sediment and flow alterations.

Snake River - North Bank Watersheds

Watersheds north of the Snake River, including tributaries of the Snake River are described starting from the far northeastern corner of the Upper Snake Basin. There are several streams located here which are not tributaries to the Snake. These include the Camas Creek, Medicine Lodge Creek, Birch Creek, Little Lost River, Big Lost River, and Big Wood River watersheds.

In the Camas Creek watershed, nonpoint source impacts are due to irrigated and non-irrigated crop production, pastureland, and rangeland which have led to channelization, riparian vegetation removal, and streambank modification. Beneficial uses of agricultural water supply, and primary and secondary contact recreation are potentially at risk. Uses of cold water biota and salmonid spawning are partially supported. The primary pollutants in this basin are nutrients, sediment, thermal modification, flow alteration, and bacteria from agricultural activities. There is also sediment pollution from hydrologic/habitat modification.

In the watersheds of Medicine Lodge and Birch creeks, nonpoint source impacts occur from irrigated and non-irrigated crop production, rangeland, and pastureland. These have caused

channelization, riparian vegetation removal, and streambank modification. Beneficial uses of agricultural water supply and primary and secondary contact recreation are potentially at risk. Uses of cold water biota and salmonid spawning range from potentially at risk to partially supported or not supported. The primary pollutants in these two watersheds are nutrients, sediment, habitat alterations, and bacteria from agricultural activities. Sediment, flow alteration, and thermal modification also occur as a result of hydrologic/habitat modification.

Irrigated and non-irrigated crop production, and use of the land for range and pasture have caused impacts to the Little Lost and Big Lost River watersheds. These activities have led to riparian vegetation removal, channelization, flow modification, and streambank modification. Road or bridge construction and dam construction have contributed to these problems. Beneficial uses of agricultural water supply and primary and secondary contact recreation are potentially at risk. Uses of cold water biota and salmonid spawning are reported to range from not supported or partially supported to potentially at risk. Primary pollutants are nutrients, sediment, bacteria from agricultural activities, flow alteration, thermal alteration, and other habitat alterations from hydrologic/habitat modifications.

Little Wood River and Big Wood River Watersheds

In the Little Wood River watershed, nonpoint source impacts are from activities related to irrigated and non-irrigated crop production, rangeland, and pastureland. These activities have caused flow modification, riparian vegetation removal, and streambank modification. Beneficial uses of cold water biota and secondary contact recreation are potentially at risk. Beneficial uses of cold water biota and salmonid spawning range from partially supported or not supported to potentially at risk. The primary pollutants in this watershed are nutrients, sediment, organic enrichment, and bacteria from agricultural activities, as well as sediment and flow alteration from hydrologic/habitat modifications.

In the Big Wood River watershed, nonpoint source impacts occur primarily from irrigated crop production, rangeland, and pastureland, with some impacts from non-irrigated crop production and construction. The resulting flow regulation and streambank modification have caused excessive sedimentation as well as flow alteration. The primary pollutants from agricultural activities are nutrients, sediment, organic enrichment, and bacteria. Beneficial uses of agricultural water supply, cold water biota, and secondary contact recreation are potentially at risk. Uses of salmonid spawning and primary contact recreation range from potentially at risk to partially supported.

Summary of Nonpoint Source Activities - Streams

The primary sources of impacts to water quality in this basin are from nonpoint source activities (Figure 11). In the Upper Snake Basin 5,732 stream miles were assessed for nonpoint source impacts. The TAC reported that 2,913 stream miles are impacted by agricultural activities (Figure 12), with impacts affecting beneficial uses in 2,106 stream miles (Figure 13).

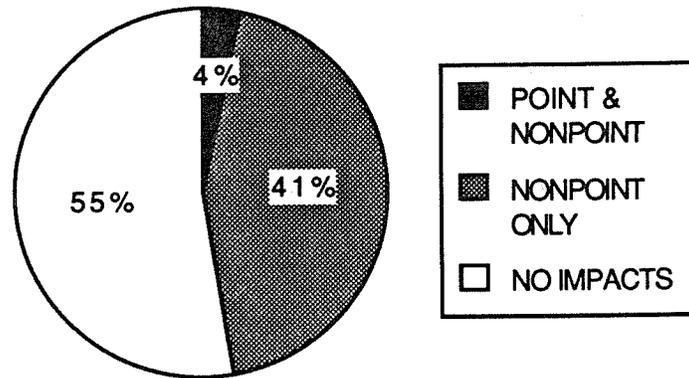


Figure 11. Major Sources of Impacts to Upper Snake Basin Streams.

There are 1,766 stream miles impacted by hydrologic/habitat modification, with beneficial uses not fully supported in 1,734 miles. There are 197 stream miles impacted by construction activities with beneficial uses not fully supported, 134 miles are impacted by mining activities with 21 miles having impacts to beneficial uses, and 35 miles impacted by forest practices with 20 miles having impacts to beneficial uses. There are an additional 109 stream miles impacted by other activities, primarily recreation, with 47 miles of beneficial uses not fully supported.

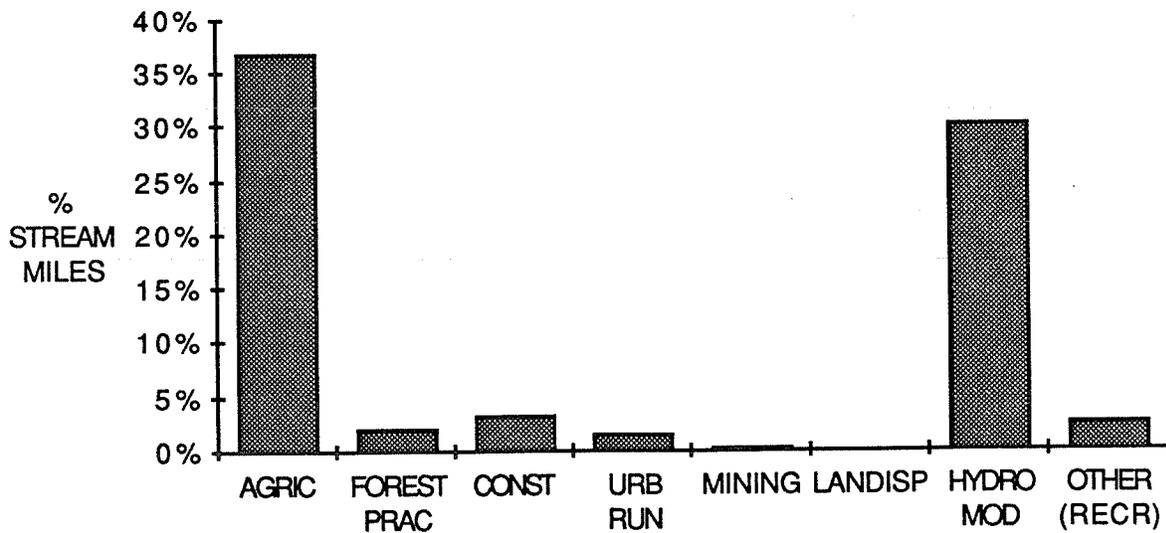


Figure 12. Nonpoint Source Activities Affecting Beneficial Uses in Upper Snake River Basin Streams. (Note: Some hydrologic/habitat modification impacts may occur as secondary impacts in conjunction with other activities, thus some stream miles may be included under hydrologic/habitat modification as well as under another nonpoint source activity.)

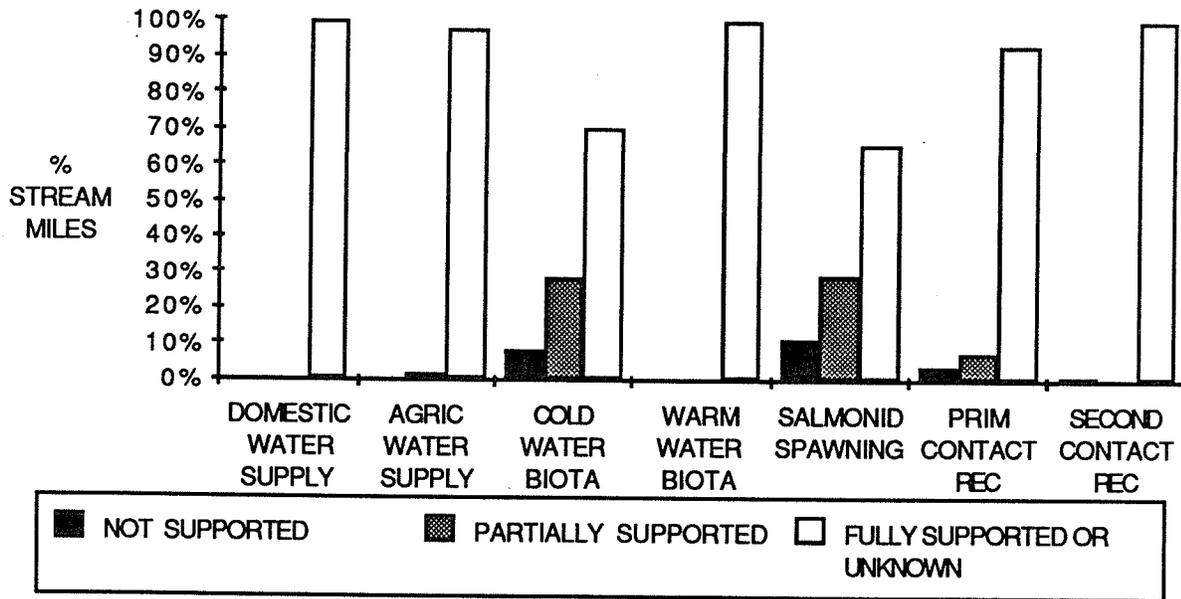


Figure 13. Beneficial Use Support Status in the Upper Snake River Basin Streams. (Note: "Fully Supported or Unknown" includes those streams where beneficial uses are specifically designated in Idaho Water Quality Standards or have been determined to exist and are fully supported and those streams for which no information was provided on beneficial use support status).

Point Source Impacts

There are several municipal and industrial facilities with NPDES permits to discharge wastewater to streams in this basin. These are classified as "major" or "minor" discharges. A major municipal facility is defined as a facility with a permit to discharge one million or more gallons of wastewater per day and/or process wastewater for a community of 10,000 or more population. A major industrial facility is classified according to a rating system used by the EPA which considers the volume of wastewater discharged, the volume and flow characteristics of the receiving stream, and the composition of the wastewater being discharged.

There is one major municipal facility discharging into the Teton River. There are two major municipal facilities discharging to the Big Wood River and one major municipal facility discharging into the Little Wood River. Billingsley Creek has four, and Riley Creek has two major industrial facilities with permits to discharge wastewater. Cedar Draw Creek has one major industrial discharger. Clear Lake has three major industrial dischargers. There is one major industrial facility discharging wastewater into Crystal Springs Lake and the Snake River. One major industrial facility is discharging into Niagara Springs Creek. There is one major municipal facility discharging to the Portneuf River.

There are six major industrial facilities with permits to discharge wastewater into the Snake River between its confluence with the South Fork and the town of King Hill. In addition, there are two major municipal facilities which discharge into this section of the Snake River, and two major industrial facilities which discharge into the Snake via Milner Reservoir. One major municipal facility is discharging into American Falls Reservoir.

Summary of Nonpoint Source Activities - Lakes

River impoundments dominate the Upper Snake River Basin. The numerous reservoirs on the Snake River and its major tributaries were created primarily for irrigation water storage. A total of 116,509 lake acres were assessed in this basin. Thirty-three percent of the total acres assessed were classed as eutrophic and 66 percent as mesotrophic. The greatest source of pollutants to lakes in this basin are nonpoint (Figure 14).

Agriculture is by far the greatest source of nonpoint pollution impacts in the basins. Activities reported to impact lake quality include irrigated and non-irrigated crop production, pastureland, rangeland, feedlots, and aquaculture (Figure 15). Pollutants of greatest concern are nutrients, sediment, bacteria, and organic wastes. Hydrologic/habitat modification was also reported to impact water quality. Low pool volumes in late summer from irrigation water draw-downs increase temperature and decrease dissolved oxygen.

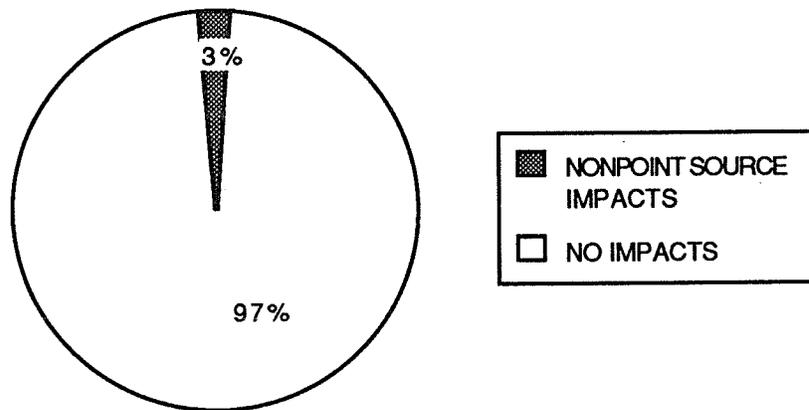


Figure 14. Major Sources of Impacts to Upper Snake Basin Lakes.

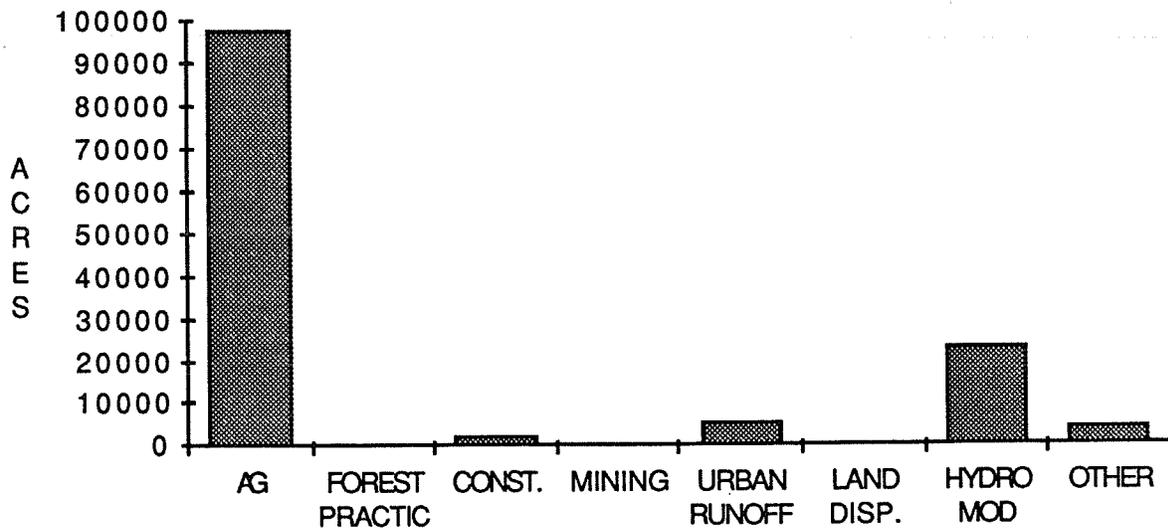


Figure 15. Nonpoint Source Activities Affecting Beneficial Uses in Upper Snake Basin Lakes.

Although the majority of lakes in this basin are moderately to very productive, most support their beneficial uses. Beneficial uses of greatest concern are cold water biota and salmonid spawning (Figure 16). American Falls Reservoir alone (56,055 acres) accounts for the less than full support status in these two use categories. Because of the high productivity of the lakes in this basin, most were reported to fully support their uses but with concern the uses could be potentially at risk if water quality declines further.

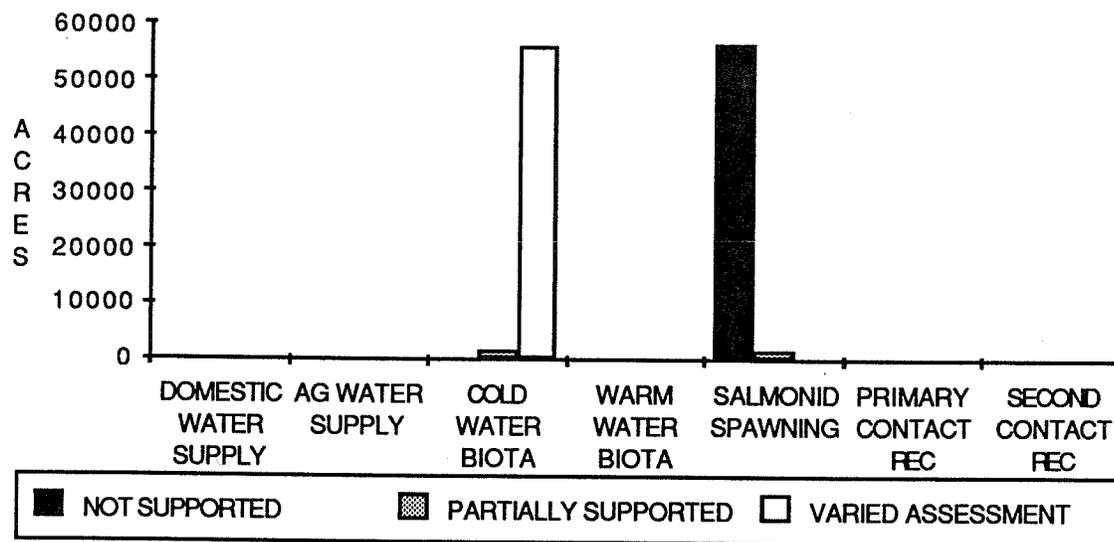


Figure 16. Beneficial Uses Not Fully Supported in Upper Snake Basin Lakes.

SOUTHWEST BASIN

Basin Description

The Southwest Basin is the section of the Middle Snake River Basin in Idaho, and is bordered by Nevada on the south and Oregon on the west (Figure 17). The basin includes all the drainages to the Snake River from King Hill to the confluence with the Salmon River. This includes Owyhee, Ada, Canyon, Boise, Gem, Payette, and Washington counties and parts of Adams, Valley, Camas, Elmore, and Idaho counties.

The Southwest Basin drains an area of approximately 19,250 square miles. Major tributaries to the Snake River are the Bruneau River, Boise River, Payette River, and Weiser River. The tributaries in Oregon which drain into the Snake River, but are not included in the Southwest Basin are the Owyhee River, Malheur River, Burnt River, and Powder River.

The area south of the Snake River is characterized by arid sagebrush deserts at the lower elevations to rugged topography at higher elevations in the Owyhee Mountains. Most of the area is rangeland, the majority of which is under public ownership. This area is sparsely populated with the economy dependent on livestock grazing and irrigated agriculture.

The section of the basin north of the Snake River varies from the lowlands of the Snake River Plain to rugged mountainous terrain in the central and northern areas. The lowlands along the river at elevations approximately 2,100 feet are used for rangeland and irrigated and non-irrigated crop production. The mountainous areas, where elevations can exceed 10,000 feet, are predominantly forested.

The Southwest Basin contains some of the most highly industrialized and urbanized areas in Idaho. Ada and Canyon Counties contain 25% of the state's population (284,000 people in 1986) and include the cities of Boise, Meridian, Nampa, and Caldwell. Agriculture and the food processing industry are of major importance to the economy. Corporate and public administrative services are centered in Boise. The Mountain Home Air Force Base is a major employer in Elmore county.

Assessment Procedure

There were 3,794 stream miles assessed for nonpoint source impacts in this basin. Ambient monitoring data was used to calculate a "Water Quality Index" (WQI) and a "Water Quality Profile" (Table 10) on 13 stream segments in the basin.

Additional information was solicited from the TAC and DEQ and consists of both monitored and evaluated data. For the purposes of this report, monitored data is objective information of current (within the past five years) site-specific ambient conditions. Evaluated data is information other than site-specific ambient data and includes assessments based on chemical or biological information which is older than five years, predictive modeling, surveys and inventories by land management agencies, perception, and best professional judgment by natural resource professionals. The discussion of water quality conditions from assessed information in this basin is based on monitored data for 376 stream miles and 32,400 lake acres and evaluated data on 2,152 stream miles and 72,400 lake acres.

SOUTHWEST BASIN

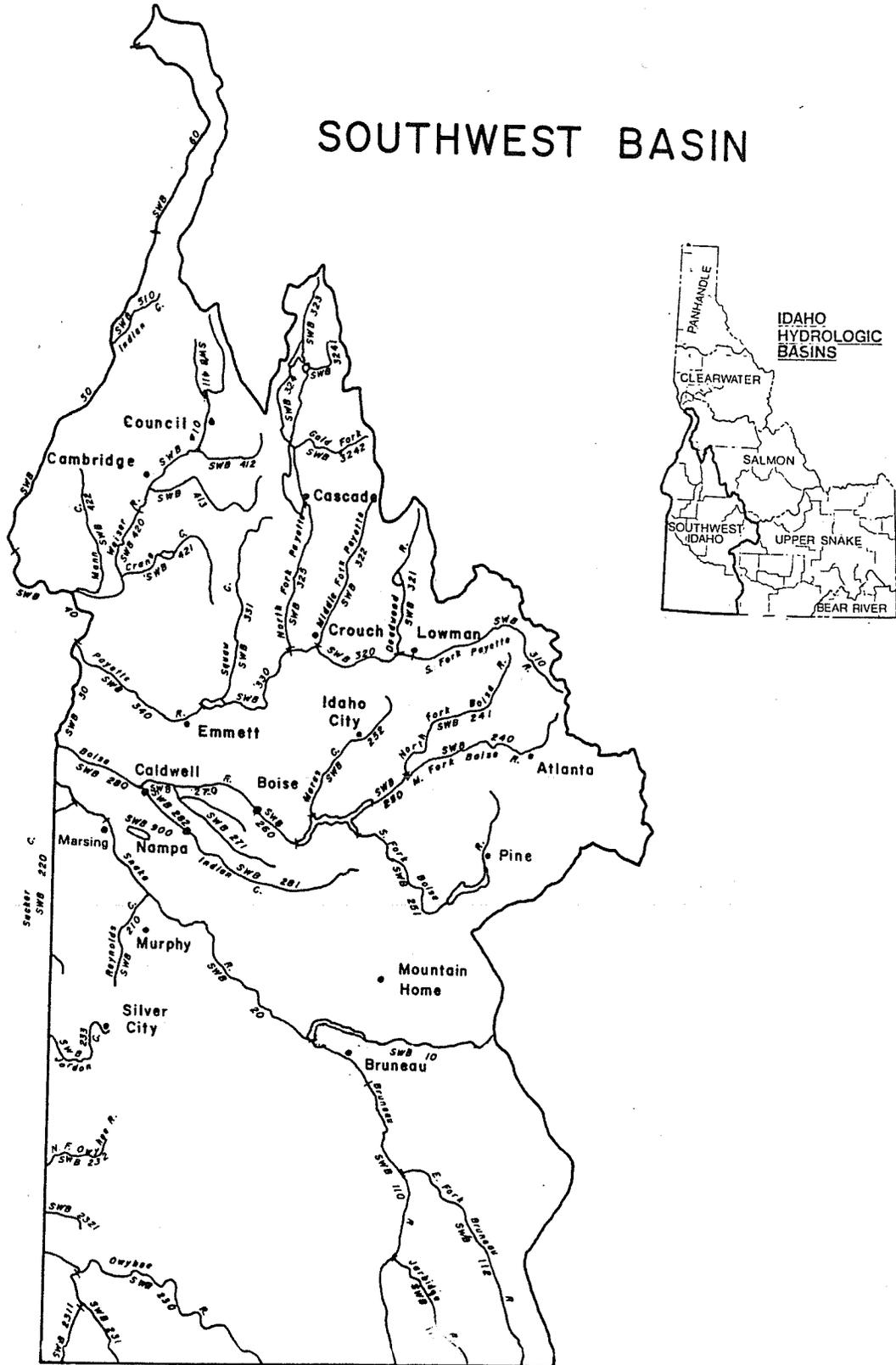


Figure 17. Southwest Basin.

Results - Water Quality Index

The WQI is calculated from ambient data collected at least quarterly in a complete water year during the period of record, October 1982 to October 1987. Table 10 displays the WQI for the monitoring stations located on stream segments in this basin. The "Average WQI" is an average value for each parameter during the period of record. The "Overall Station Conditions" is an average value using all parameters for the period of record, with an average value for the worst three months shown in parentheses. The overall descriptive rating is based on the worst three consecutive months, which is the value shown in parentheses. A more complete description of the calculation of the WQI is included in the section titled "Materials and Methods."

Data from thirteen stations indicate that water quality conditions in the Southwest Basin range from poor to good. This reflects the diversity of land use activities that occur in the basin.

The water quality of the Boise River progressively worsens from Lucky Peak to its mouth near Parma. Frequent irrigation diversions and return flows have degraded quality to poor between these two stations. There are municipal wastewater discharges to this segment which also contribute to degraded water quality. At the Glenwood Bridge station the river is rated fair with excessive nutrients. Near Middleton, the Boise River is rated fair, with elevated bacteria and nutrients. Conditions at Parma are poor with excessive bacteria, nutrients, sediment, and metals, as well as elevated temperatures.

In the Bruneau River drainage, conditions measured near Bruneau are poor. Waters are heavily laden with sediment from spring runoff and irrigation return flows. Temperature, bacteria, nutrients, and metals are rated fair. Overall conditions are poor.

Payette River water quality follows a pattern similar to the Boise River. It, too, is impacted by intense agricultural development. In general, conditions worsen in a downstream direction. Water quality is fair at the Hartsell Bridge station with fair ratings for bacteria and metals. At the Letha Bridge station, the Payette River is rated fair with fair ratings for temperature, bacteria, nutrients, sediment, and metals. At Black Canyon Dam, the Payette is rated good with fair ratings for temperature, sediment, and metals. The river is degraded to poor at Payette due to excessive temperature, sediment, nutrients, bacteria, and metals. The overall rating for the Weiser River is poor with fair ratings for temperature, bacteria, nutrients, aesthetics, sediment and metals. Irrigated agriculture and grazing are major sources of sediment, nutrients, and bacteria.

Main Snake River monitoring stations in this basin have recorded high concentrations of bacteria, nutrients, and sediment. Conditions at Marsing are fair due to excessive temperature, nutrients, sediment, metals, poor oxygen, and aesthetics. Conditions in the Snake River at Weiser are poor. Temperature, bacteria, metals, sediment and nutrients are elevated. Below at Hell's Canyon Dam have improved to fair with fair ratings for oxygen, nutrients, and metals.

Monitoring stations in the Southwest Basin are located on the lower reaches of mainstem rivers. Water quality conditions of the upper drainage areas are therefore not addressed with a WQI.

Table 9. Southwest Basin Water Quality Profile.

Station: Boise River below Lucky Peak Dam Segment #: SWB-260 Storet #: BOI101

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	11	good	62	6 (7) good
Oxygen	6	8	good	62	
pH	5	8	good	60	
Bacteria	1	2	good	63	
Trophic Status	7	10	good	62	
Aesthetics	3	6	good	63	
Solids	6	11	good	63	
Metal Toxicity	20	20	good	10	
Ammonia Toxicity	0	0	good	59	

Last Sampled: 9/30/87

Station: Boise River at Glenwood Bridge Segment #: SWB-270 Storet #: BOI106

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	10	16	good	64	20 (25) fair
Oxygen	9	13	good	64	
pH	6	12	good	64	
Bacteria	11	19	good	65	
Trophic Status	30	41	fair	65	
Aesthetics	3	8	good	65	
Solids	6	14	good	65	
Metal Toxicity	20	20	good	10	
Ammonia Toxicity	3	6	good	63	

Last Sampled: 9/30/87

Station: Boise River near Middleton Segment #: SWB-270 Storet #: BOI132

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	6	19	good	61	30 (37) fair
Oxygen	4	9	good	62	
pH	3	3	good	61	
Bacteria	23	42	fair	63	
Trophic Status	39	53	fair	62	
Aesthetics	4	8	good	63	
Solids	9	18	good	63	
Metal Toxicity	20	20	good	10	
Ammonia Toxicity	0	1	good	59	

Last Sampled: 9/30/87

Station: Boise River near Parma Segment #: SWB-280 Storet #: BOI133

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	13	26	fair	61	65 (81) poor
Oxygen	13	16	good	61	
pH	4	5	good	61	
Bacteria	41	63	poor	62	
Trophic Status	61	75	poor	62	
Aesthetics	8	12	good	62	
Solids	22	28	fair	65	
Metal Toxicity	23	26	fair	10	
Ammonia Toxicity	2	3	good	60	

Last Sampled: 9/30/87

Station: Bruneau River near Bruneau Segment #: SWB-120 Storet #: 151067

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	17	44	fair	12	36 (76) poor
Oxygen	7	12	good	12	
pH	5	7	good	12	
Bacteria	19	30	fair	12	
Trophic Status	19	24	fair	12	
Aesthetics	12	35	fair	11	
Solids	23	70	poor	12	
Metal Toxicity	31	50	fair	12	
Ammonia Toxicity	2	6	good	12	

Last Sampled: 9/29/83

Station: Payette River at Hartsell Bridge Segment #: SWB-324 Storet #: GAR100

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	16	good	35	12 (29) fair
Oxygen	9	13	good	24	
pH	8	11	good	25	
Bacteria	9	26	fair	32	
Trophic Status	8	10	good	37	
Aesthetics	1	2	good	27	
Solids	2	5	good	36	
Metal Toxicity	25	41	fair	8	
Ammonia Toxicity	0	0	good	20	

Last Sampled: 9/30/87

Station: Payette R. at Letha Bridge Segment #: SWB-340 Storet #: EMM025

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	11	34	fair	32	28 (41) fair
Oxygen	3	8	good	32	
pH	4	5	good	32	
Bacteria	24	53	fair	32	
Trophic Status	18	25	fair	32	
Aesthetics	5	7	good	32	
Solids	16	26	fair	36	
Metal Toxicity	26	37	fair	10	
Ammonia Toxicity	0	1	good	32	

Last Sampled: 9/30/87

Station: Payette R. below Black Canyon Dam Segment #: SWB-340 Storet #: EMM015

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	8	29	fair	33	14 (20) good
Oxygen	3	9	good	34	
pH	3	5	good	33	
Bacteria	8	17	good	35	
Trophic Status	9	14	good	35	
Aesthetics	3	6	good	35	
Solids	15	34	fair	77	
Metal Toxicity	21	23	fair	12	
Ammonia Toxicity	0	0	good	33	

Last Sampled: 9/30/87

Station: Payette Rive near Payette Segment #: SWB-340 Storet #: EMM010

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	13	26	fair	32	35 (66) poor
Oxygen	6	9	good	32	
pH	3	5	good	32	
Bacteria	33	70	poor	33	
Trophic Status	21	29	fair	33	
Aesthetics	8	12	good	33	
Solids	22	31	fair	33	
Metal Toxicity	23	28	fair	9	
Ammonia Toxicity	0	1	good	32	

Last Sampled: 9/30/87

Station: Weiser River near Weiser Segment #: SWB-420 Storet #: 151092

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	14	35	fair	21	43 (61) poor
Oxygen	9	14	good	21	
pH	6	11	good	21	
Bacteria	23	37	fair	21	
Trophic Status	23	29	fair	21	
Aesthetics	15	25	fair	21	
Solids	21	36	fair	21	
Metal Toxicity	39	54	fair	21	
Ammonia Toxicity	4	13	good	20	

Last Sampled: 9/28/84

Station: Snake River at Marsing Segment #: SWB-20 Storet #: 151162

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	13	29	fair	12	28 (40) fair
Oxygen	13	25	fair	12	
pH	8	9	good	12	
Bacteria	11	20	good	12	
Trophic Status	27	34	fair	12	
Aesthetics	12	32	fair	12	
Solids	14	24	fair	12	
Metal Toxicity	24	32	fair	12	
Ammonia Toxicity	5	13	good	12	

Last Sampled: 9/26/83

Station: Snake River at Weiser Segment #: SWB-40 Storet #: 13269000

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	13	40	fair	20	49 (69) poor
Oxygen	3	4	good	19	
pH	12	16	good	19	
Bacteria	24	41	fair	19	
Trophic Status	30	33	fair	19	
Aesthetics	14	18	good	19	
Solids	36	42	fair	19	
Metal Toxicity	24	31	fair	13	
Ammonia Toxicity	8	15	good	19	

Last Sampled: 9/30/86

Station: Snake River at Hells Canyon Dam Segment #: SWB-60 Storet #: 13290450

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	12	20	good	19	26 (29) fair
Oxygen	28	30	fair	14	
pH	7	8	good	14	
Bacteria	2	4	good	14	
Trophic Status	22	27	fair	13	
Aesthetics	6	10	good	14	
Solids	-	-	-	0	
Metal Toxicity	20	21	fair	14	
Ammonia Toxicity	7	9	good	14	

Last Sampled: 9/30/86

Results - Assessed Information

The following discussion of water quality in this basin is based on monitored data for 376 stream miles and evaluated data on 2,152 stream miles submitted by the TAC and DEQ. This discussion is based upon information separate from the monitored data used to calculate the WQI. The WQI provides a description of water quality conditions from monitored data collected between October 1982 to October 1987. Other monitoring data collected within the last five years and evaluated information were used for this portion of the report.

Submitters who provided information on streams for this report made an assessment of the degree of beneficial use support in streams being impacted by nonpoint source pollution. Beneficial uses were assessed as "not supported," "partially supported," or "potentially at risk" (see definitions in Appendix A). Those streams which were rated "potentially at risk" were presumed by submitters to fully support their beneficial uses but were anticipated to experience some level of beneficial use impairment by nonpoint source pollution in the future. Future impacts could be the result of the cumulative effects of ongoing activities, adverse trends, or the result of anticipated activities.

Snake River - Middle Reaches

The Snake River enters the Southwest Basin from the Upper Snake Basin at King Hill. Between King Hill and the mouth of the Bruneau River at the C.J. Strike Reservoir, the Snake is affected by irrigated agriculture and grazing activities. Sediment and pesticides are the major pollutants of concern, but organic enrichment and flow alteration are problems identified for the reservoir. These segments of the Snake River support all beneficial uses except salmonid spawning, which is partially supported. All other beneficial uses are potentially at risk. Several small creeks (King Hill, Deadman, Little Canyon, Alkali, Ryegrass, Cold Springs, Sailor, Bennett, and Browns) originate in the uplands adjacent to the river canyon and flow into the Snake River. Grazing is the predominant nonpoint source activity along these streams, but some irrigated agriculture and road construction impacts are reported. Sediment, and to a lesser extent, thermal modification and flow alteration are the problems reported in these streams. All beneficial uses are generally reported as supported in these streams.

Bruneau River Watershed

The Bruneau River system is composed of the Bruneau and Jarbidge rivers, which flow north from Nevada's Humbolt Mountains. The Jarbidge River and its tributaries (Poison and Cougar creeks and the East Fork of the Jarbidge River) have grazing land uses along their banks. Grazing use can result in the associated impacts of riparian vegetation removal and bank destabilization. Minor amounts of road construction were also reported. These uses have led to sediment and bacteria as the primary nonpoint source pollutants, with thermal modification also a problem. Cold water biota are not supported in the tributaries. Salmonid spawning is partially supported. Uses are supported in the Jarbidge River.

The East Fork of the Bruneau River and its tributaries are impacted by rangeland activities with minor amounts of irrigated crop production along the river. Riparian vegetation removal and flow alteration are attributed to grazing activities. Sediment is the primary nonpoint source pollutant followed by thermal modification and flow alteration. Cold water biota is partially supported.

The Bruneau River and its tributaries (Mary's, Sheep, and Hot creeks) have adjacent land uses of grazing. Some irrigated and non-irrigated crop production are reported along the river. Riparian vegetation removal is reported along the tributaries. Sediment, thermal modification, and flow alteration are the primary nonpoint source problems. Cold water biota and salmonid spawning are partially supported on all streams except Hot Creek, where natural limitations exist. Primary contact recreation is partially supported on the Bruneau River.

Between the C.J. Strike Reservoir and the Boise River several creeks draining into the Snake River were reported as impacted by nonpoint source activities. This watershed is impacted by irrigated crop production and rangeland activities. The grazing activities have associated riparian vegetation removal and bank destabilization problems, while flow regulation is attributed to irrigated crop production. Nonpoint source pollutants are sediment, thermal modification, and flow alteration. Cold water biota and salmonid spawning are partially supported.

The Snake River between C.J. Strike Reservoir and the Boise River have irrigated crop production and rangeland activities along their course. Sediment and pesticides are the primary nonpoint source pollutants. Salmonid spawning is partially supported, cold water biota is potentially at risk.

Owyhee River Watershed

The Owyhee River system of southwestern Idaho flows from the mountains in Nevada and the Owyhee Mountains of Idaho into Oregon, where the river turns northeast to flow into the Snake River. Tributaries to the Owyhee River exist primarily in rangeland with a minor amount of irrigated crop production along the Owyhee, Little Owyhee, and South Fork of the Owyhee rivers. Riparian vegetation removal and flow modification are attributed to rangeland activities. Primary pollutants reported include sediment, thermal modification, flow alteration, and habitat alteration. Cold water biota and salmonid spawning are partially supported on most reaches but not supported on a few. Primary and secondary contact recreation are not supported on Shoefly Creek. The Owyhee River supports irrigated crop production and rangeland but no impacts to beneficial uses or pollution problems are reported.

The North Fork of the Owyhee River and its tributaries have a similar pattern of rangeland use with irrigated crop production restricted to the lands adjacent to the river. Riparian vegetation removal, bank destabilization, and flow regulation are attributed to rangeland activities.

Sediment, thermal modification, and flow alteration are the primary pollution problems. Cold water biota and salmonid spawning are reported as either partially supported or potentially at risk throughout the watershed.

The Middle Fork of the Owyhee River and its tributaries in Idaho (Jordan and Williams creeks) have rangeland and irrigated crop production activities typical of this area of Idaho, as well as considerable mining impacts on some tributaries of Jordan Creek. Riparian vegetation removal, bank destabilization, and flow regulation are attributed to rangeland activities. On streams affected by grazing alone, sediment, thermal modification, and flow alteration are the primary pollutants. On Jordan Creek and its tributaries mining activities contribute low pH and heavy metals. Throughout most of the basin, cold water biota and salmonid spawning are either partially supported or potentially at risk. All other uses are supported.

Cow Creek with its tributaries, Soda and McBride creeks, flow directly into Oregon. Rangeland use and some placer mining are reported to have caused riparian vegetation removal, bank destabilization, and flow regulation. Primary pollutants reported for these streams are sediment, thermal modification, and flow alteration. Only agricultural water supply is supported in Soda Creek, all other protected uses are not supported. Cold water biota and salmonid spawning uses are partially supported in Cow and McBride creeks.

Boise River Watershed

The Boise River system flows from the Boise and Sawtooth mountains west to the Snake River. The North Fork of the Boise River is primarily forested land. Grazing is the only reported activity in the basin. No pollutants or impacts to beneficial uses are reported for the North Fork of the Boise River. The Middle Fork of the Boise River has rangeland and forest practice uses. Dredge mining is reported on the Middle Fork, while forest practices and roading impacts are reported for Cottonwood Creek. Metals and sediment are the primary pollutants reported from these practices. Cold water biota is reported to be partially supported on the Middle Fork. Cold water biota and salmonid spawning beneficial uses in Cottonwood Creek are potentially at risk. Arrowrock Reservoir where the Middle Fork and South Fork meet, has rangeland activities, but no pollutants or effects on beneficial uses are reported.

Tributaries to the South Fork of the Boise River are reported to be affected by rangeland activities, forest practice activities including road building or maintenance, and dredge mining. Sediment is the primary pollutant in these waters. Cold water biota and salmonid spawning beneficial uses are potentially at risk, except on Wood Creek where they are partially supported. Anderson Ranch Reservoir on the South Fork is impacted by rangeland activities, but no pollutants or impacts on beneficial uses are reported. Similarly, the South Fork has non-irrigated crop production and rangeland activities, but no pollutants are reported or impacts to the beneficial uses.

Mores Creek and its tributary Grimes Creek flow into Lucky Peak Reservoir. Both creeks are impacted by nearly one hundred years of placer and dredge mining. Mores Creek has forest practice, road construction, irrigated and non-irrigated crop production, and rangeland activities. Primary pollutants are sediment and nutrients. Cold water biota is partially supported in both streams. Other beneficial uses are potentially at risk in Mores Creek. Lucky Peak Reservoir is impacted by rangeland activities, but no pollutants are reported for the reservoir and all beneficial uses are supported.

The mainstem of the Boise River between Lucky Peak Dam and the town of Star passes through the most urbanized area of the state. It is reported to be affected by irrigated and non-irrigated crop production, rangeland, road construction, urban surface runoff, and land development. Pollutants from these sources are sediment and organic enrichment. Salmonid spawning is partially supported, while all other beneficial uses are potentially at risk.

The tributaries of the lower mainstem of the Boise River below Star are affected by irrigated crop production, rangeland, land development, surface runoff, and road construction. Primary pollutants in these tributaries include nutrients, sediment, and organic enrichment. Warm water biota, cold water biota, salmonid spawning, and primary contact recreation are either partially supported or not supported in these tributaries. Agricultural water supply and secondary contact recreation are potentially at risk.

The lower Boise River segments are affected by nonpoint source activities which include irrigated and non-irrigated crop production, rangeland, and animal holding areas. Nutrients, sediment, and organic enrichment are the primary pollutants. Cold water biota, salmonid spawning, primary and secondary contact recreation are only partially supported, while agricultural water supply and warm water biota are potentially at risk.

Payette River Watershed - Above Cascade Reservoir

The Payette River system drains a broad area of the Sawtooth, Boise, Salmon and West mountains to the Snake River. The South Fork of the Payette and its tributaries are impacted by forest practice and roading activities, highway construction and maintenance, and rangeland. Sediment is the primary pollutant on these reaches. All beneficial uses are potentially at risk. Another South Fork tributary, the Deadwood River which includes the Deadwood Reservoir, is impacted by rangeland activities which are causing sedimentation. No impacts to beneficial uses are reported.

The Middle Fork of the Payette River is reported to have irrigated and non-irrigated crop production and rangeland activities along its lower course. No pollutants or beneficial use impacts are reported.

The North Fork of the Payette River is reported to have grazing, forest practices, and mining land uses in its upper reaches. Cold water biota and salmonid spawning are partially supported in this reach. The primary pollutants are nutrients, sediment, organic enrichment, and thermal modification. Below Fisher Creek to Payette Lake, rangeland is the reported land use, but no pollutants or impacts are reported for this reach, Upper Payette Lake or Payette Lake. Granite Lake is reportedly affected by agriculture, forest practice, and road construction activities. Although no pollutants are reported, cold water biota is partially supported, while salmonid spawning is not supported. Between Payette Lake and Cascade Reservoir, agriculture, forest practices, and land development are reported to affect the river. Nutrients, sediment, thermal modification, and flow alteration are the primary pollutants. Cold water biota and salmonid spawning are partially supported.

Tributaries flowing into Cascade Reservoir are impacted by irrigated crop production, rangeland, animal holding areas, forest practice and roading activities, and land development. Nutrients, sediment, organic enrichment, bacteria, and thermal modification are the primary pollutants of concern. Cold water biota and salmonid spawning uses are reported to be partially supported in the reservoirs and tributaries, while other uses are potentially at risk in the reservoir. A recent failure of a surface mining settling pond may have allowed nonpoint source pollution to impact the North Fork of the Payette River above Cascade Reservoir.

Payette River Watershed - Below Cascade Reservoir

Below Cascade Reservoir, tributaries to the North Fork of the Payette River are reported to be affected by agriculture, forest practice and road construction activities. Resulting pollutants include nutrients, sediment, organic enrichment, thermal modification, and flow alteration. Cold water biota and salmonid spawning are partially supported in the tributaries and the river.

The mainstem of the Payette River, between the Middle Fork and South Fork confluence and Black Canyon Reservoir has irrigated and non-irrigated crop production and rangeland impacts. Sediment is the primary pollutant. Cold water biota and salmonid spawning are partially supported. Warm water biota is potentially at risk. Black Canyon Reservoir has similar land uses adjacent to it. In this case nutrient and sediment pollution are reported. Salmonid spawning is not supported, while all other beneficial uses are supported but potentially at risk in the reservoir.

The lower Payette River has several tributaries affected by nonpoint source activities including irrigated and non-irrigated crop production, rangeland activities, feedlots, forest practices, and roading. Primary pollutants are sediment, bacteria, and organic enrichment. Salmonid spawning and warm water biota is either partially or not supported. Cold water biota ranges from not supported to potentially at risk. Primary contact recreation is only partially supported on two streams.

The lower Payette River has irrigated and non-irrigated crop production and rangeland activities reported along its course. Sediment is the primary pollutant, but all beneficial uses are fully supported.

Weiser River Watershed

The Weiser River's upper tributaries support agricultural and forest practice activities. These activities have resulted in primary pollutants of sediment, thermal modification, and flow alteration. Cold water biota and salmonid spawning uses are reported to be partially supported in these tributaries.

The Middle Fork of the Weiser River is impacted by irrigated and non-irrigated crop production. Although sediment is a primary pollutant, all beneficial uses are supported.

Land use activities on the Little Weiser River are irrigated and non-irrigated crop production, rangeland, animal holding areas, and forest practices and roading. Primary pollutants include sediment, nutrients, organic enrichment, bacteria, and thermal modification. Domestic water supply use and warm water biota are not supported. Cold water biota and salmonid spawning are partially supported, while other beneficial uses are potentially at risk.

Land use activities between the Weiser River and its headwaters and the Galloway Diversion include irrigated and non-irrigated crop production, rangeland, forest practices, mining, and land disposal. Pollutants reported include nutrients, sediment, organic enrichment, pesticides, bacteria, and thermal modification as well as flow and habitat alterations. Domestic water supply use is reported as not supported, while cold water biota, salmonid spawning and primary contact recreation are partially supported. Other uses are potentially at risk.

The lower tributaries to the Weiser River have impacts from irrigated and non-irrigated crop production, rangeland, forest harvesting and roading, and receive runoff from other surface disturbing activities. Sediments, nutrients, organic enrichment, bacteria, oils, and thermal modification are the primary pollutants. These tributaries only partially support cold water

biota, salmonid spawning, and primary contact recreation. Other beneficial uses are supported but potentially at risk.

The lower Weiser River is impacted by irrigated and non-irrigated crop production and rangeland activities. Primary pollutants are sediment and nutrients. All beneficial uses are potentially at risk, except salmonid spawning which is partially supported.

Snake River - Lower Reaches

The Snake River between the Boise River and Weiser River has reported land uses which include irrigated crop production, specialty crops, and rangeland. Sediment and nutrients are the primary pollutants reported in this reach. Cold water biota and salmonid spawning are partially supported and other beneficial uses are potentially at risk.

The Snake River tributaries to the reach between the Weiser River and Big Cougar Creek are impacted by irrigated crop production and rangeland, with some forest practice and mining activities. Primary pollutants are sediment, nutrients, pH, and metals. Cold water biota and salmonid spawning are partially supported. Warm water biota is not supported in some streams; other uses are potentially at risk.

The Snake River between the Weiser River and Hells Canyon Dam is reported to be impacted by irrigated crop production and rangeland activities. Sediment is the primary pollutant. Cold water biota is partially supported, while salmonid spawning is not supported. Other uses are potentially at risk. Below Hells Canyon Dam the Snake River is impacted by rangeland activities. No pollutants are reported for this reach down to Big Cougar Creek, and all beneficial uses are fully supported.

Summary of Nonpoint Source Activities - Streams

Predominant water quality impacts in the Southwest Basin are from nonpoint source activities (Figure 18).

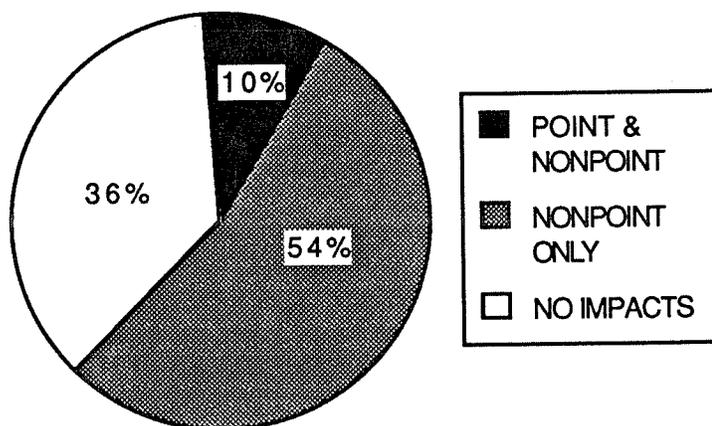


Figure 18. Major Sources of Impacts to Southwest Basin Streams.

There are 2,414 miles of streams with nonpoint source pollution impacts which are not fully supporting beneficial uses. There are 392 miles of streams with point source pollution impacts which are not supporting beneficial uses. Some streams not supporting uses have both point and nonpoint source impacts. Of 3,794 stream miles assessed, 1,380 stream miles have no impacts from either point or nonpoint sources which are affecting beneficial uses.

Five nonpoint source activities account for the majority of impacts in the basin: agriculture, forest practices, construction, and hydrologic/habitat modification (Figure 19). Agricultural activities are a major contributor of sediment, nutrients, and bacteria. It was reported that 3,270 stream miles were impacted by agricultural activities and of these, 2,270 miles of streams have impaired beneficial uses (Figure 20). Grazing is the greatest agricultural use on public lands, especially on National Forest System and Bureau of Land Management lands south of the Snake River. There were 1,215 stream miles reported to be impacted by hydrologic/habitat modifications with 952 miles having effects on beneficial uses.

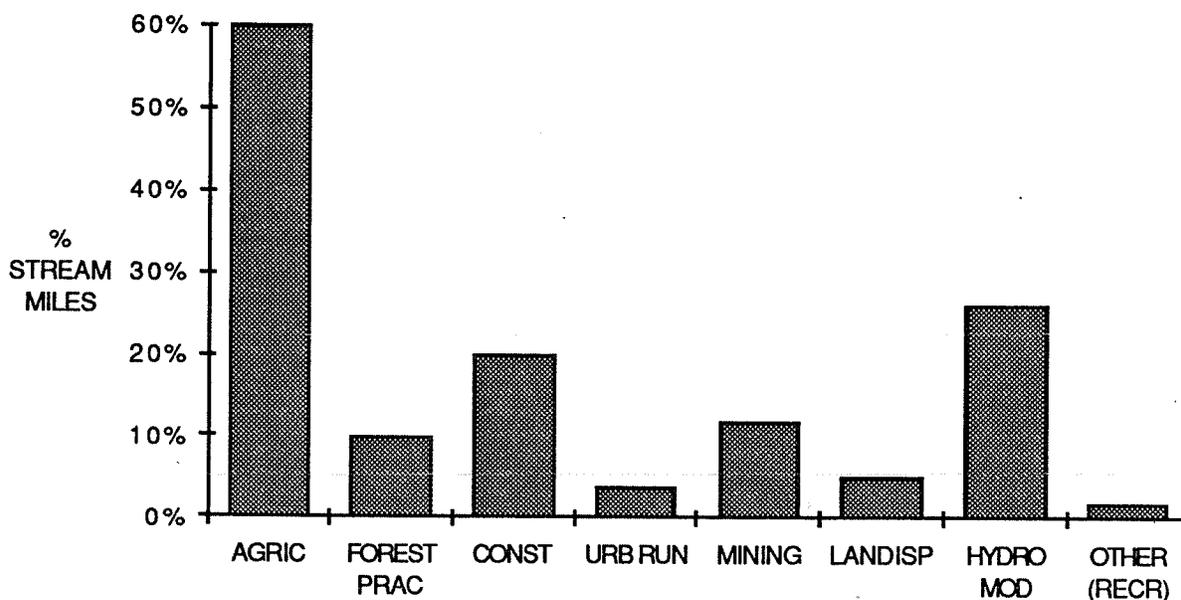


Figure 19. Nonpoint Source Activities Affecting Beneficial Uses in Southwest Basin Streams. (Note: Some hydrologic/habitat modification impacts may occur as secondary impacts in conjunction with other activities, thus some stream miles may be included under hydrologic/habitat modification as well as under another nonpoint source activity.)

Construction activities are reported to be impacting 729 miles of stream with 684 stream miles having beneficial uses impacted. Forest practices are reported to be impacting 643 stream miles, with beneficial uses reported as impacted in 430 miles. Mining activities are reportedly impacting 579 miles of streams and affecting beneficial uses in 446 stream miles. There are 215 miles of streams being impacted by land disposal activities and 165 stream miles are reported to have impacts to beneficial uses. Another 182 stream miles are affected by other activities, primarily recreation, with 100 miles of beneficial uses reported as affected.

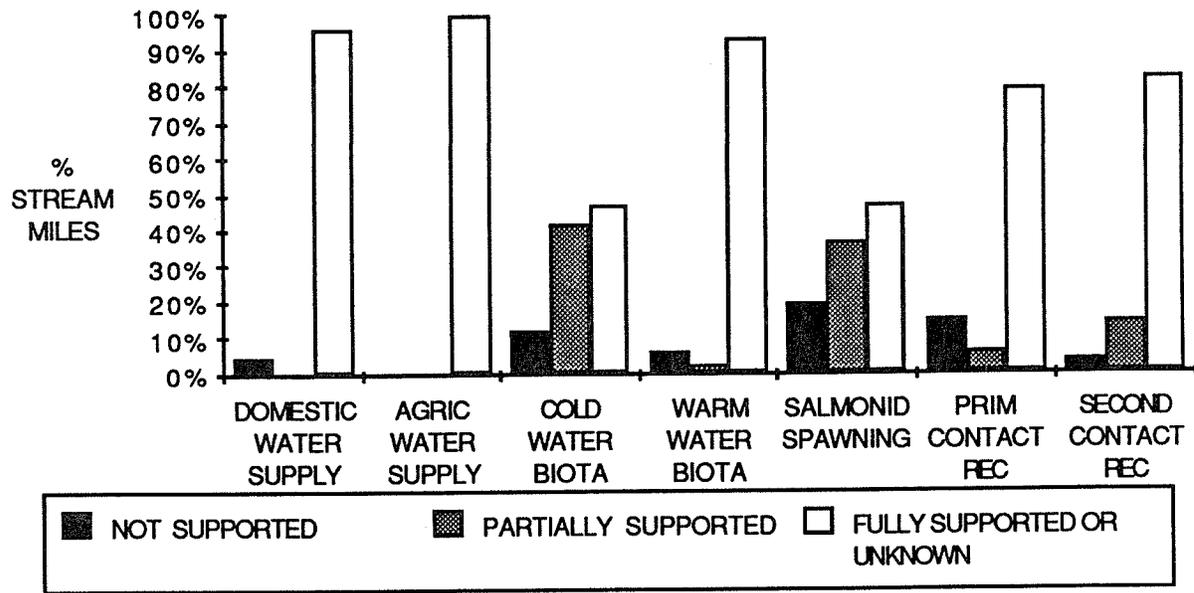


Figure 20. Beneficial Use Support Status in Southwest Basin Streams. (Note: "Fully Supported or Unknown" includes those streams where beneficial uses are specifically designated in Idaho Water Quality Standards or have been determined to exist and are fully supported and those streams for which no information was provided on beneficial use support status).

Although minor relative to some nonpoint source impacts, mining poses a risk to water quality in some of the upper drainages of the Southwest Basin. The largest silver mine in the state that uses cyanide as a primary leaching agent operates in this basin. Sediment pollution and potential cyanide contamination of surface and groundwaters are of particular concern, although no major contamination has occurred.

Point Source Impacts

There are several municipal and industrial facilities with NPDES permits to discharge wastewater to streams in this basin. These are classified as "major" or "minor" discharges. A major municipal facility is defined as one with a permit to discharge one million or more gallons of wastewater per day and/or process wastewater for a community of 10,000 or more population. A major industrial facility is classified according to a rating system used by the EPA which considers the volume of wastewater discharged, the volume and flow characteristics of the receiving stream, and the composition of the wastewater being discharged.

In the Southwest Basin, 21% of the water quality impacts to assessed waters are from point sources. There are 5 major municipal facilities discharging wastewater to the Boise River. This includes one facility which discharges to Five Mile Creek and one discharger to Indian Creek, both of which are tributaries to the Boise River. In addition, there is one major industrial discharger to Indian Creek.

There is one major municipal discharge to the Payette River, North Fork, and another major municipal discharge to the mainstem Payette River. One major municipal facility discharges to the Snake River.

Summary of Nonpoint Source Activities - Lakes

A total of 72,399 lake acres were assessed in this basin. Eutrophic lakes comprised over 70 percent of the total assessed acres; oligotrophic lakes comprised 20 percent, with the remaining 10 percent not classified. The percentage of lakes having impaired beneficial uses is shown in Figure 21.

River impoundments dominate the Southwest Basin. Successive impoundments are common and primarily constructed for irrigation water storage, flood control, and power generation. Examples are Anderson Ranch, Arrowrock, and Lucky Peak reservoirs.

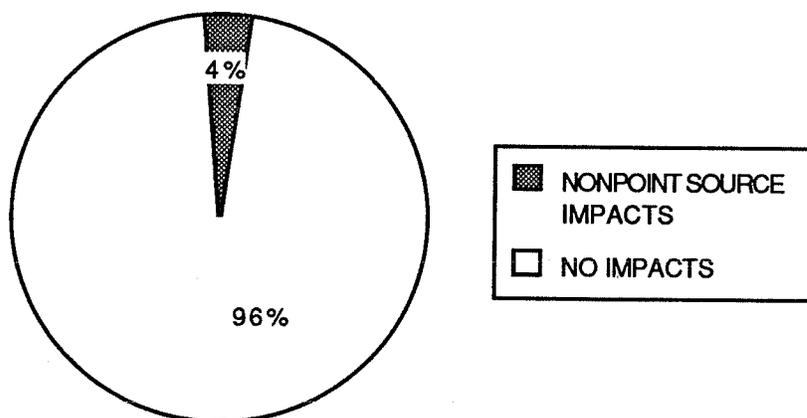


Figure 21. Major Sources of Impacts to Southwest Basin Lakes.

The eutrophic lakes tend to be the lower elevation mainstem river impoundments or off-stream reservoirs such as Lake Lowell. Cascade Reservoir is a noted exception of a eutrophic reservoir at moderate elevation.

Anderson Ranch and Deadwood are two upstream, higher elevation reservoirs that are classed as oligotrophic. Payette Lake, one of the few large natural lakes in this basin, accounts for the remaining oligotrophic acreage in this basin.

Agriculture is the most significant source of impact to lake water quality in the Southwest Basin (Figure 22). Activities contributing to eutrophic lake conditions include irrigated and non-irrigated agriculture, pastureland, rangeland, and animal holding areas. Pollutants of greatest concern are nutrients, sediment, and bacteria.

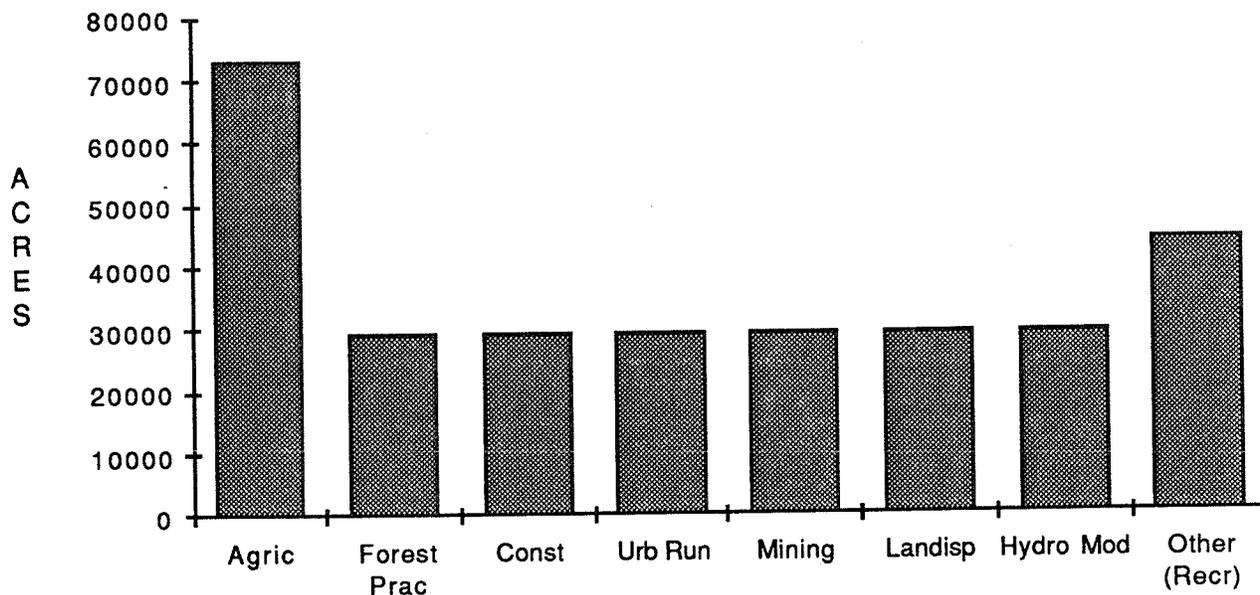


Figure 22. Nonpoint Source Activities Affecting Beneficial Uses in Southwest Basin Lakes.

Cascade Reservoir is unique as a eutrophic reservoir in the basin because of its numerous and varied sources of impacts. Subsurface sewage disposal from shoreline homes, construction, irrigated crop land, pastureland, rangeland, and animal holding areas in the valley bottom, and forest practices and mining in the upper watershed have all been reported to affect water quality. In addition, a municipal sewage treatment plant discharges into the North Fork of the Payette River which flows into Cascade Reservoir. The size of Cascade Reservoir (30,000 acres) and diversity of impacts are largely responsible for the magnitude of many sources of impact shown in Figure 22.

Beneficial uses reported to be less than fully supported for most lakes include domestic water supply, cold water biota, salmonid spawning, and primary and secondary contact recreation (Figure 23). In the majority of lakes, where one use is less than fully supported, several other uses are shown to be fully supported or potentially at risk if continued degradation occurs. Lake Lowell is fed from the Boise River through the New York Canal. The lake is reported to be affected by irrigated crop production, rangeland, and animal holding area activities. Nutrients, sediment, organic enrichment, and alteration impact the lake. Warm water biota, primary and secondary contact recreational uses are potentially at risk.

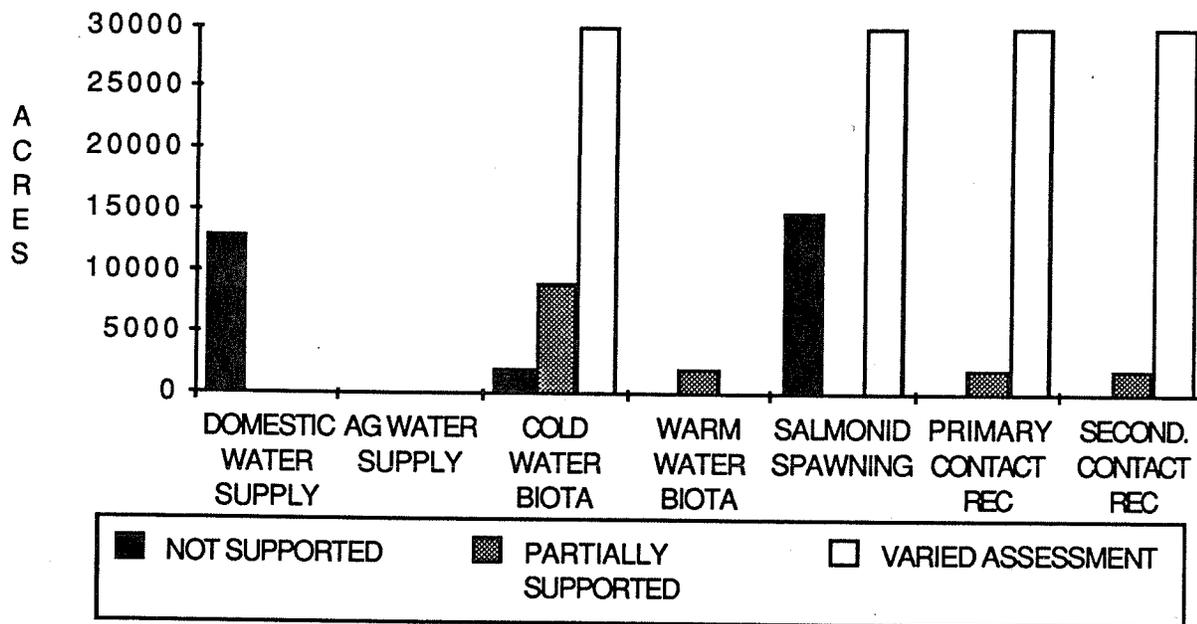


Figure 23. Beneficial Uses Not Fully Supported in Southwest Basin Lakes.

SALMON RIVER BASIN

Basin Description

The Salmon River Basin is located in central Idaho and includes all of Lemhi county and part of Custer, Valley, Idaho, and Adams counties (Figure 24). The major tributaries include the Yankee Fork, East Fork of the Salmon; the Pahsimeroi River; Lemhi River; the North Fork, Middle Fork, and South Fork of the Salmon; and the Little Salmon River.

The Salmon River Basin encompasses a drainage area of approximately 14,000 square miles. The area is rugged and mountainous except for the broad valleys in the upper Salmon drainage. The change in elevation from mountain peaks near Stanley to the mouth is more than 10,000 ft. Thermal springs occur throughout the basin, most notably on the Middle Fork and Upper Salmon River between Stanley and Clayton. The basin is contained within the Idaho batholith land type and has sandy granitic soils in the mountainous areas with alluvial deposits of silts and gravels in the valleys.

The major portion of this basin is under state and federal ownership made up of rangeland and coniferous forests. It includes the Sawtooth National Recreation Area, the Frank Church River of No Return Wilderness Area and river sections in the National Wild and Scenic River System. Recreation, mining, ranching, and timber production are the primary land uses. Population is relatively sparse among the principal communities of Challis, Salmon and Riggins.



Figure 24. Salmon River Basin.

Assessment Procedure

There were 2,550 stream miles assessed for nonpoint source impacts in the Salmon Basin. Ambient monitoring data collected by the USGS at one station was used to calculate a Water Quality Index (WQI).

Additional information was solicited from the TAC and DEQ and consists of both monitored and evaluated data. For the purposes of this report, monitored data is objective information of current (within the past five years) site-specific ambient conditions. Evaluated data is information other than site-specific ambient data and includes assessments based on chemical or biological information which is older than five years, predictive modeling, surveys and inventories by land management agencies, perception, and best professional judgment by natural resource professionals. The discussion of water quality conditions from assessed information in this basin is based on monitored data on 226 stream miles and evaluated data on 1,015 stream miles.

Results - Water Quality Index

The WQI is calculated from ambient data collected at least quarterly in a complete water year for the period of record, October 1982 to October 1987 (see Table 10). The "Average WQI" is an average value for each parameter during the period of record. The "Overall Station Conditions" is an average value using all parameters for the period of record, with an average value for the worst three months shown in parentheses. The overall descriptive rating is based on the worst three consecutive months, which is the value shown in parentheses. A more complete description of the calculation of the WQI is included in the "Materials and Methods" section on page 3.

Water quality sampling has been conducted by the USGS at one station, Salmon River at Whitebird, in the Salmon River Basin. Results are shown in Table 10. Water quality conditions are rated fair. During the runoff period, April through June, sediment loading causes in water quality rating of fair. The results also show a fair rating for metals toxicity, a reflection of the basin's rich mineralization and long history of mining. Since there were no sampling stations located in the upper portions of the basin, no conclusions can be drawn about water quality in areas of the Salmon River upstream of Whitebird. Although there may be impacts in upper tributaries and the upper Salmon itself, as the volume of flow increases, and pollutants reach the lower Salmon, they are effectively diluted.

Table 10. Salmon River Basin Water Quality Profile.

Station: Salmon River at Whitebird Segment #: SB-70 Storet #: 13317000

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	13	good	24	16 (34) fair
Oxygen	11	16	good	24	
pH	8	9	good	24	
Bacteria	7	17	good	24	
Trophic Status	7	10	good	24	
Aesthetics	3	7	good	23	
Solids	14	41	fair	24	
Metal Toxicity	22	24	fair	15	
Ammonia Toxicity	3	5	good	24	

Last Sampled: 9/30/87

Results - Assessed Information

The following discussion of water quality in this basin is based on monitored data for 226 stream miles and evaluated data for 1,015 stream miles submitted by the TAC and DEQ. This discussion is based upon information separate from the monitored data used to calculate the WQI. The WQI provides a description of water quality conditions from monitored data collected between October 1982 to October 1987. Other monitoring data collected within the last five years and evaluated information were used for this portion of the report.

Submitters who provided information on streams for this report made an assessment of the degree of beneficial use support in streams being impacted by nonpoint source pollution. Beneficial uses were assessed as "not supported," "partially supported," or "potentially at risk" (see definitions in Appendix A). Those streams which were rated "potentially at risk" were presumed by submitters to fully support their beneficial uses but were anticipated to experience some level of beneficial use impairment by nonpoint source pollution in the future. Future impacts could be the result of the cumulative effects of ongoing activities, adverse trends, or the result of anticipated activities.

Upper Salmon River Drainage

The headwaters of the Salmon River drain the eastern portion of the Sawtooth Mountain range. As the river winds through the Sawtooth Valley and the town of Stanley, cold water biota and salmonid spawning range from potentially at risk to partially supported. Primary and secondary contact recreation are potentially at risk. The primary pollutant throughout this reach, which extends to the East Fork of the South Fork of the Salmon River, is sedimentation caused by rangeland and pastureland, land development, road runoff, mining and associated channelization, removal of riparian vegetation, and streambank modification. Lesser impacts of nutrients and bacteria from pastureland and rangeland, unknown toxicity from storm sewers, and metals from mining are also reported for this reach.

Yankee Fork Drainage

The first major tributary of the Salmon River is the Yankee Fork which has a history of dredge and placer mining as well as underground workings. Mining is the predominant land use in this watershed even today. Cold water biota and salmonid spawning range from potentially at risk to partially supported in the Yankee Fork. Primary and secondary contact recreation are potentially at risk. Primary pollutants are sediment and metals from mining and habitat alteration from dredging. Additional impacts have occurred from forest practice activities and non-irrigated crop production.

Downstream of the Yankee Fork, mining, recreation, and rangeland are the main land uses in many of the smaller watersheds which flow into the Salmon from headwaters in the Challis National Forest. Cold water biota and salmonid spawning also range from potentially at risk to partially supported. In Squaw Creek, salmonid spawning is reported as ranging from potentially at risk to not supported. Moderate to high impacts in lower Squaw Creek are attributed to road maintenance and construction activities, irrigated crop production, pastureland, rangeland, and related flow modification which physically prevents fish passage. Pollutants of concern are sediment from roads, mining, pasture and rangeland, flow alteration from flow modification, and metals from mine tailings.

East Fork Drainage

The East Fork of the Salmon generally drains high quality water from the White Cloud Mountains, but the valley bottom is primarily agricultural land. Impacts from irrigated crop production and rangeland are slight for both the East Fork and the Main Salmon down to the Pahsimeroi. Status of beneficial use support was not reported.

Warm Springs Creek, Garden Creek and Challis Creek, are relatively small tributaries to the Salmon near the town of Challis. Beneficial uses are reported to be potentially at risk to partially supported due to sedimentation from streambank modification, channelization, flow modification, rangeland, pastureland, roads, and non-irrigated cropland. Flow alteration from flow modification, and nutrients from pastureland, irrigated and non-irrigated cropland are contributing to the impact. Salmonid spawning in Challis Creek is partially supported or not supported.

Pahsimeroi River Drainage

The Pahsimeroi River is a major watershed, draining high mountain areas and agricultural land in the valley bottom. Cold water biota and salmonid spawning are potentially at risk or partially supported. Primary and secondary contact recreation are potentially at risk. Irrigated crop production, pastureland, and rangeland are causing sedimentation and nutrient impacts. Flow modification, streambank modification, and roads are causing sedimentation and flow alteration. Tributaries of the Pahsimeroi that have been impacted by nonpoint sources are Big Creek, Morse Creek, and Patterson Creek. Cold water biota and salmonid spawning are partially supported or not supported. Medium to high impacts occur from mining, flow regulation, roads, pastureland, and rangeland.

The Salmon River from the Pahsimeroi to the North Fork has uses potentially at risk to partially supported. Sediment from pastureland, rangeland, streambank destabilization, road construction and maintenance and timber harvesting. Flow alteration from streambank modification also occurs in this watershed.

Lemhi River Drainage

The Lemhi River meets the Salmon River near the town of Salmon. Cold water biota and salmonid spawning in many tributaries of the drainage are potentially at risk or partially supported. Primary and secondary contact recreation are potentially at risk throughout this drainage. Generally, sedimentation from irrigated crop production, rangeland, pastureland, streambank modification, and roads is the primary pollutant of concern. Secondly, nutrients from pastureland and cropland are causing concern. Mill Creek and Big Eight Mile Creek do not support or only partially support salmonid spawning. These creeks are additionally affected by flow alteration from flow modification activities. McDevitt Creek is reported to have sedimentation impacts from forest practices and associated road construction and maintenance. McDevitt Creek also has thermal modification and other habitat alterations from removal of riparian vegetation and streambank destabilization.

North Fork Drainage

The North Fork and the Salmon River to Corn Creek have slight impacts from range and irrigated crop production. No other information was provided, therefore, beneficial use support status is not known.

Cold water biota and salmonid spawning are partially supported in Dump Creek while other uses are potentially at risk. Channelization, flow and streambank modification, dredge and placer mining, and natural sources have all contributed to sedimentation and destabilization.

Panther Creek

Acid mine drainage from the Blackbird Mine has been severely impacting Blackbird Creek and Panther Creek, which flow into the Salmon River near Shoup, since the 1950s. Beneficial uses, including cold water biota and salmonid spawning are generally not supported. Acidity, sedimentation due to iron precipitates, and high copper concentrations are precluding recovery, although lower Panther Creek has recovered somewhat in recent years.

Middle Fork Drainage

The Middle Fork of the Salmon River is a nationally designated Wild and Scenic river surrounded by wilderness. Bear Valley Creek and Marsh Creek join to form the headwaters of the Middle Fork. Cold water biota and salmonid spawning in Bear Valley Creek are potentially at risk or partially supported due to sedimentation from hydrologic/habitat modification, rangeland, timber harvesting, road construction and maintenance, placer mining, channelization, and dredging. Hydrologic/habitat modification in Elkhorn Creek, a small tributary to the Middle Fork, has impacted fisheries as well, with impacts from sedimentation, thermal modification, and flow alteration. Cold water biota and salmonid spawning are potentially at risk or partially supported in Monumental Creek due to sediment from surface mining, road construction and maintenance, and forest practices. A sediment pond failure several years ago at the now inactive Dewey Mine is a main cause for the impacted beneficial use status. Naturally occurring landslides in the area happen periodically which also contribute sediment.

South Fork of the Salmon Drainage

The South Fork of the Salmon River is a large and diverse watershed, which is almost entirely within the Idaho batholith. Cold water biota and salmonid spawning are only partially supported through most of the reach. Historically, mining, grazing and forest practice activities have all contributed to sedimentation in the South Fork drainage. However, intensive logging and roading followed by extreme climatic events in 1964-65 devastated the aquatic community. Recovery has been gradual but sustained.

The East Fork of the South Fork drains the Stibnite mining district. Extensive mining for antimony and tungsten occurred during World War II. Currently, Stibnite is the site of an extensive cyanide heap leaching facility and future mining development is anticipated. Runoff containing sediment, metals, and arsenic from surface and placer mining as well as sediment from roads put cold water biota either potentially at risk or partially supported. Other beneficial uses are potentially at risk. Nonpoint sources of sediment that are causing beneficial uses on Johnson Creek to be potentially at risk are road construction and maintenance, forest practices, and rangeland.

Water quality in the main Salmon River is generally good from Corn Creek to the mouth and all beneficial uses are fully supported. The Little Salmon River is the last major tributary to the Salmon River at Riggins. Cold water biota and salmonid spawning are only partially supported. A recent spill involving the transportation of a fungicide resulted in a 90-100% fish kill from the spill site down to Riggins. Recovery of macroinvertebrate communities has occurred since the spill, and the Idaho Department of Fish and Game plans to reestablish fish populations. Other nonpoint source impacts in the watershed include agriculture, land disposal, forest practices, construction and hydrologic/habitat modification. These sources contribute

sediment, nutrients, thermal modification, and bacteria to the Little Salmon and its tributaries. Cold water biota and salmonid spawning are potentially at risk in Rapid River, Trail Creek, and Round Valley Creek.

Several small drainages drain into the main Salmon before it flows into the Snake River south of Lewiston. They include Rock, Rice, Cottonwood, Deer, and China creeks. Nonpoint source impacts causing potentially at risk to non-supported beneficial uses of cold water biota and salmonid spawning include sedimentation from rangeland, crop production, road construction and maintenance, and forest practice activities. Cold water biota and salmonid spawning are potentially at risk in Deep Creek, Maloney Creek, Eagle Creek, and Satin Creek.

Summary of Nonpoint Source Activities - Streams

Predominant water quality impacts in this basin are from nonpoint sources (Figure 25). Municipal and industrial point source impacts are localized but negligible overall.

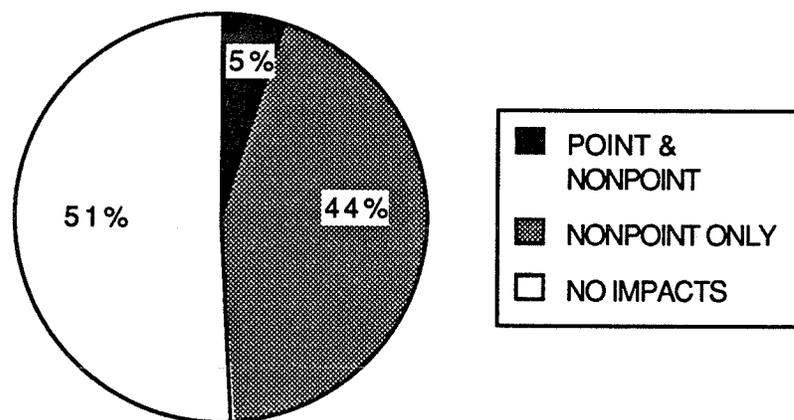


Figure 25. Major Sources of Impacts to Salmon Basin Streams.

There were 2,550 miles of stream assessed for nonpoint source impacts in the Salmon Basin. The TAC reported that 1287 stream miles were impacted by agricultural activities (Figure 26) with 859 of the stream miles having impacts to beneficial uses (Figure 27). Forest practices have impacted 614 stream miles with 520 stream miles having impacts to beneficial uses. Construction has impacted 614 stream miles with 480 miles having impacts to uses, while mining has impacted 672 miles of streams with 450 of these stream miles having impacts to beneficial uses. Hydrologic/habitat modifications caused impacts to 580 stream miles with all of these having impacts to beneficial uses. There were 93 stream miles impacted by land disposal activities with all 93 of these stream miles having impacts to beneficial uses. Another 177 miles of streams are impacted by other nonpoint source activities, primarily recreation, with all of these stream miles having impacts to beneficial uses.

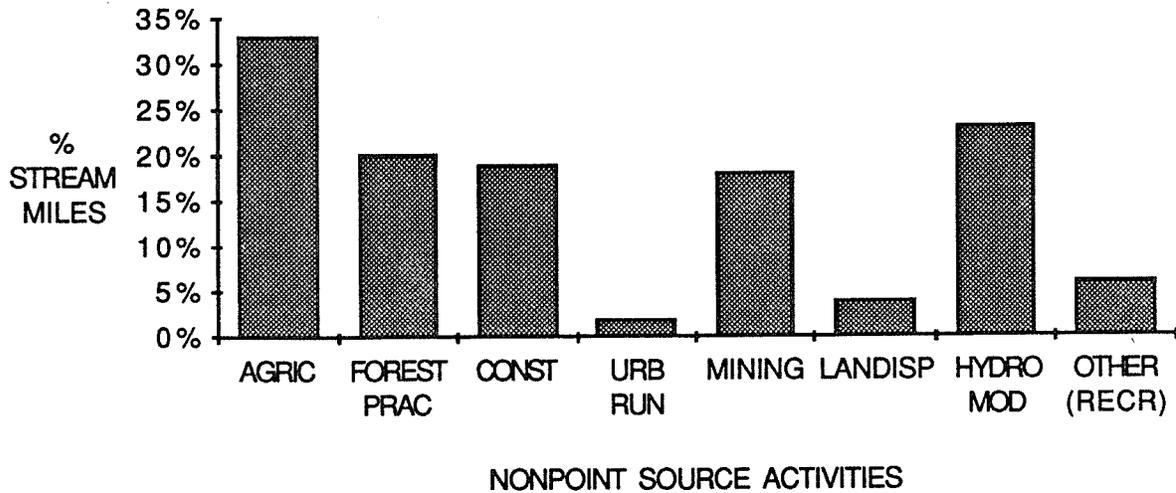


Figure 26. Nonpoint Source Activities Affecting Beneficial Uses in Salmon Basin Streams (Note: Some hydrologic/habitat modification impacts may occur as secondary impacts in conjunction with other activities, thus some stream miles may be included under hydrologic/habitat modification as well as under another nonpoint source activity.)

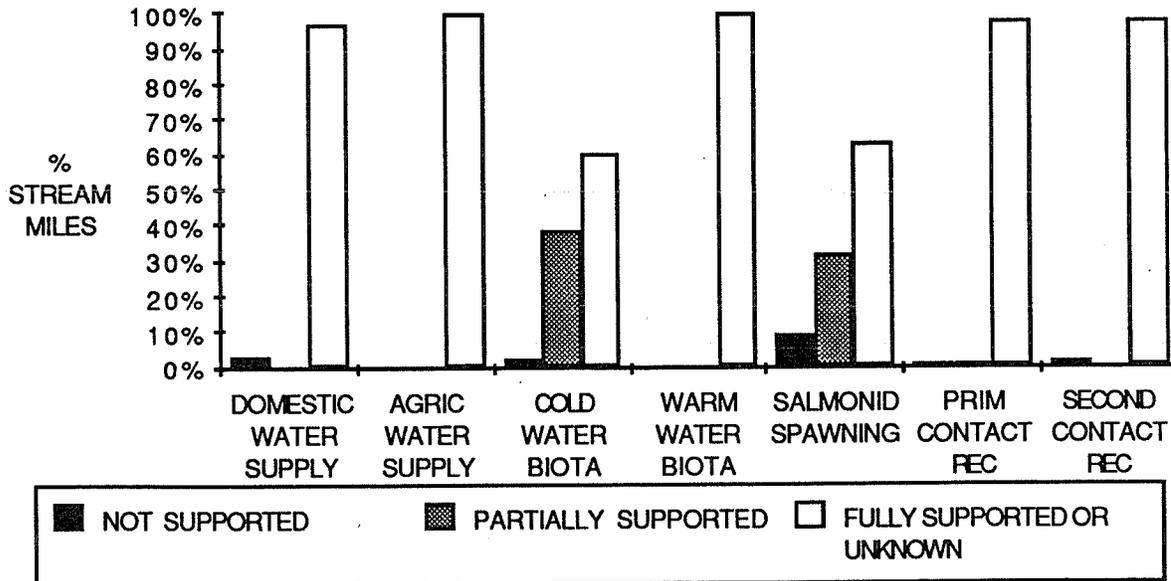


Figure 27. Beneficial Use Support Status in Salmon Basin Streams. (Note: "Fully Supported or Unknown" includes those streams where beneficial uses are specifically designated in Idaho Water Quality Standards or have been determined to exist and are fully supported and those streams for which no information was provided on beneficial use support status).

Point Source Impacts

There are several municipal and industrial facilities with NPDES permits to discharge wastewater to streams in this basin. These are classified as "major" or "minor" discharges. A major municipal facility is one with a permit to discharge one million or more gallons of wastewater per day and/or process wastewater for a community of 10,000 or more population. A major industrial facility is classified according to a rating system used by the EPA which considers the volume of wastewater discharged, the volume and flow characteristics of the receiving stream, and the composition of the wastewater being discharged.

There are no major municipal facilities with permits to discharge wastewater to streams in this basin. There are three major industrial facilities discharging wastewater to streams in this basin. There is one major industrial facility discharging into Blackbird Creek and one into Panther Creek. Another major industrial facility is discharging into Buckskin and Pat Hughes Creeks.

Summary of Nonpoint Source Activities - Lakes

Brundage Reservoir near McCall, Idaho was the only lake assessed in the Salmon River Basin, for a total of 160 acres. The lake's trophic status has not been determined. Impacts from forest practice activities were reported to be causing problems in the reservoir (Figure 28). Cold water biota and salmonid spawning are partially supported.

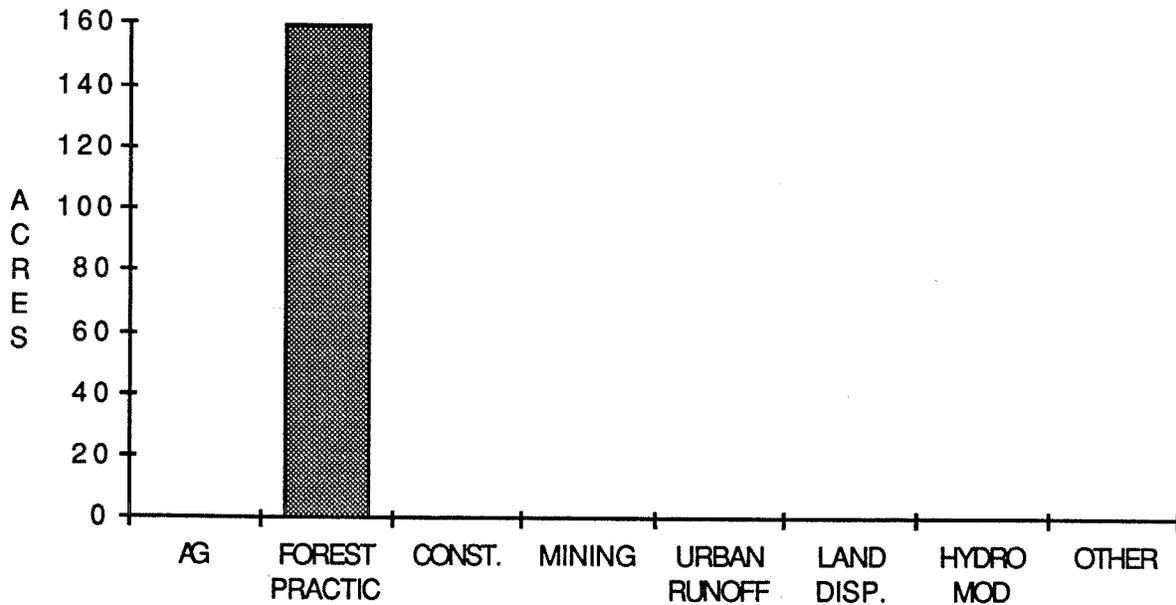


Figure 28. Nonpoint Source Activities Affecting Beneficial Uses in Salmon Basin Lakes.

CLEARWATER RIVER BASIN

Basin Description

The Clearwater River Basin is located in north central Idaho and includes the entire Clearwater River drainage and a small segment of the Snake River (Figure 29). The basin includes Latah, Clearwater, Nez Perce, and Lewis counties and part of Idaho county.

The basin extends from the Bitterroot Mountains on the east along the Idaho-Montana border to Washington on the west at the confluence with the Snake. Principal tributaries to the Clearwater River are the Selway, Lochsa, and Potlatch rivers; and the North Fork, Middle Fork, and South Fork of the Clearwater River.

The Clearwater portion of the basin covers a drainage area of approximately 9,600 square miles. The majority of the land area is mountainous in dissected granitic rocks of the Idaho batholith. Elevations range from about 725 feet on the Snake River at Lewiston to 8,500 feet at mountain peaks in the Bitterroots. Eighty five percent of the Clearwater drainage is coniferous woodland. The remainder of the basin is the Palouse-Lower Snake River region characterized by rolling high prairie topography, much of which is utilized for non-irrigated crop production.

The majority of the Clearwater drainage is under U.S. Forest Service administration and includes the Selway-Bitterroot Wilderness area. Parts of the Lochsa River, Selway River, and Middle Fork of the Clearwater River are in the federal Wild and Scenic Rivers System. Land use is mainly timber production and recreation with the balance in crop production and rangeland. Principal towns in the basin are Lewiston, Grangeville, Orofino, Kamiah, Cottonwood, and Kooskia.

Assessment Procedures

There were 1,542 stream miles assessed for nonpoint source impacts in this basin. Ambient monitoring data was used to calculate a "Water Quality Index" (WQI) and a "Water Quality Profile" (Table 10) on 13 stream segments in the basin.

Additional information was solicited from the TAC and DEQ and consists of both monitored and evaluated data. For the purposes of this report, monitored data is objective information of current (within the past five years) site-specific ambient conditions. Evaluated data is information other than site-specific ambient data and includes assessments based on chemical or biological information which is older than five years, predictive modeling, surveys and inventories by land management agencies, perception, and best professional judgment by natural resource professionals. The discussion of water quality conditions from assessed information in this basin is based on monitored data on 405 stream miles and evaluated data on 720 stream miles.

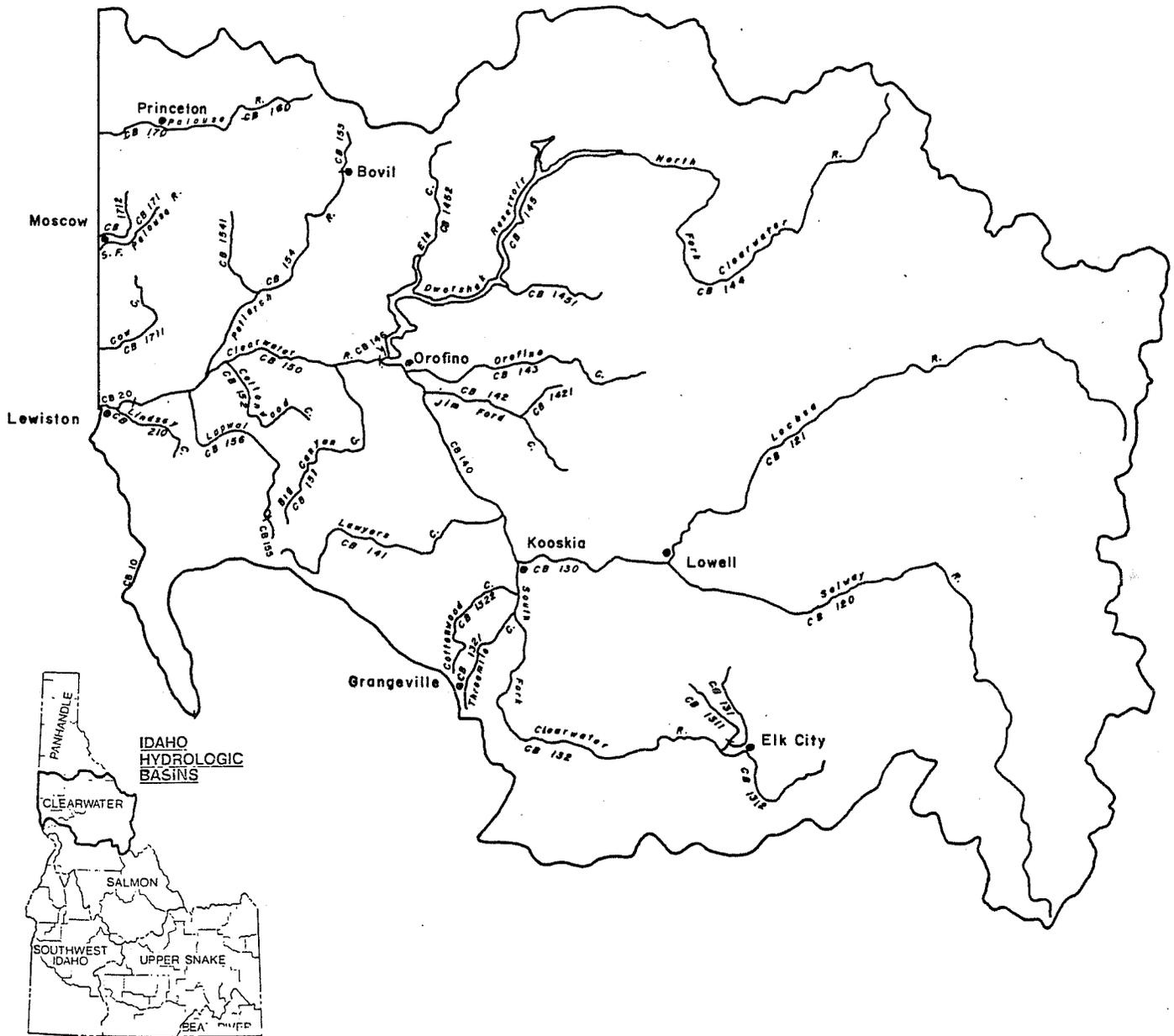


Figure 29. Clearwater River Basin

Results - Water Quality Index

The WQI is calculated from ambient data collected at least quarterly in a complete water year during the period of record, October 1982 to October 1987. Table 12 displays the WQI for the monitoring stations located on stream segments in this basin. The "Average WQI" is an average value for each parameter during the period of record. The "Overall Station Conditions" is an average value using all parameters for the period of record, with an average value for the worst three months shown in parentheses. The overall descriptive rating is based on the worst three consecutive months, which is the value shown in parentheses. A more complete description of the calculation of the WQI is included in the section titled "Materials and Methods" on page 3.

Data from three monitoring stations in the Clearwater Basin were used in assessing current water quality conditions. Results of data analysis are shown in the Clearwater Basin Water Quality Profile (Table 11).

Water quality conditions in the upper Clearwater River (Orofino and Ahsahka) are good, with a fair rating for evaluated temperature at Orofino. The upper Clearwater drainage contains some of the most pristine waters in the state. The Lochsa and Selway are both Wild and Scenic rivers prized for wild steelhead and chinook salmon.

Water quality in the lower Clearwater drainage reflects increased impacts from human activities. The Clearwater at Spalding shows water quality to be fair with bacteria and metals being pollutants of concern.

Table 11. Clearwater River Basin Water Quality Profile

Station: NF Clearwater River at Ahsahka Segment #: CB-146 Storet #: 151004

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	2	6	good	11	4 (5) good
Oxygen	3	5	good	11	
pH	5	6	good	12	
Bacteria	0	1	good	12	
Trophic Status	6	9	good	12	
Aesthetics	1	3	good	12	
Solids	2	4	good	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	1	3	good	11	

Last Sampled: 9/21/83

Station: Clearwater River at Spaulding Segment #: CB-150 Storet #: 13342500

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	4	14	good	20	19 (29) fair
Oxygen	2	6	good	17	
pH	5	6	good	20	
Bacteria	23	37	fair	14	
Trophic Status	7	8	good	20	
Aesthetics	3	9	good	20	
Solids	5	10	good	16	
Metal Toxicity	33	44	fair	13	
Ammonia Toxicity	1	2	good	19	

Last Sampled: 9/30/87

Station: Clearwater River at Orofino Segment #: CB-140 Storet #: 151003

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	28	fair	11	8 (17) good
Oxygen	2	6	good	11	
pH	4	6	good	12	
Bacteria	5	7	good	12	
Trophic Status	8	16	good	12	
Aesthetics	3	6	good	12	
Solids	3	4	good	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	0	1	good	11	

Last Sampled: 9/21/83

Results - Assessed Information

The following discussion of water quality in this basin is based on monitored data for 405 stream miles and evaluated data on 720 stream miles submitted by the TAC and DEQ. DEQ estimates that approximately half of the stream miles in this basin were assessed for nonpoint source impacts. This includes the major perennial streams in the basin and some intermittent streams. Smaller perennial streams and most intermittent streams were not assessed. This discussion is based upon information separate from the monitored data used to calculate the WQI. The WQI provides a description of water quality conditions from monitored data collected between October 1982 to October 1987. Other monitoring data and evaluated information collected within the last five years were used for this portion of the report.

Submitters who provided information on streams for this report made an assessment of the degree of beneficial use support in streams being impacted by nonpoint source pollution. Beneficial uses were assessed as "not supported," "partially supported," or "potentially at risk" (see definitions in Appendix A). Those streams which were rated "potentially at risk" were presumed by submitters to fully support their beneficial uses but were anticipated to experience some level of beneficial use impairment by nonpoint source pollution in the future. Future impacts could be the result of the cumulative effects of ongoing activities, adverse trends, or the result of anticipated activities.

South Fork Clearwater River

The South Fork of the Clearwater River is formed by the confluence of the American and Red rivers. On these source streams, rangeland and dredge mining have caused streambank modification and sedimentation. Forest practices and road construction have added to the sedimentation. Cold water biota and salmonid spawning in this watershed is reported as partially supported or potentially at risk.

The South Fork of the Clearwater River is joined by several tributaries, which are reported as impacted by rangeland, dredge mining, forest roading activities, and timber harvesting in the higher parts of the drainages. Non-irrigated crop production is the primary nonpoint source activity in the river basin. Streams are reported as potentially at risk or partially supporting salmonid spawning and primary contact recreation beneficial uses. Cold water biota and secondary contact recreation are often partially supported or supported and potentially at risk. Primary pollutants in these tributaries include nutrients, sediment, bacteria, and thermal modification as well as flow and habitat alterations.

Although a number of tributaries are impacted by nonpoint source activities, and the South Fork has non-irrigated crop production and rangeland along its course, the South Fork supports all of its beneficial uses except cold water biota which is partially supported. Sediment is the primary pollutant.

Middle Fork of the Clearwater River

The Middle Fork of the Clearwater River is formed by the confluence of the Lochsa and Selway rivers. The Selway River flows primarily through wilderness lands, while the Lochsa drainage is either undeveloped or wilderness lands. Some Lochsa watersheds partially support salmonid spawning while cold water biota is potentially at risk. Forest roading and timber harvesting have been reported as responsible for sedimentation of these streams.

Tributaries of the Middle Fork below the Lochsa-Selway confluence are reported as not supporting or partially supporting salmonid spawning and primary contact recreation. Cold water biota and secondary contact recreation are potentially at risk. Non-irrigated crop

production and rangeland activities, forest road construction, and timber harvesting, and some other road construction are causing pollution by nutrients, sediment, bacteria, and thermal modification as well as flow and habitat alterations.

The Middle Fork and its tributaries have impacts from nonpoint source activities including rangeland, non-irrigated crop production, and some irrigated crop production. However, the Middle Fork supports all its beneficial uses and has no reported nonpoint source pollutants.

The mainstem of the Clearwater begins at the confluence of the South and Middle forks. Tributaries of the mainstem which join the river above the North Fork are impacted by non-irrigated crop production, rangeland, forest roading, and timber harvesting activities. In most cases domestic water supply, salmonid spawning, and primary contact recreation are partially or non-supported. In most cases cold water biota and secondary contact recreation are partially supported or potentially at risk. The primary pollutants in this watershed include nutrients, sediment, bacteria, and thermal modification, as well as flow and habitat alterations.

North Fork - Clearwater River

The North Fork of the Clearwater River is impounded less than one mile above its confluence with the mainstem of the Clearwater to form the Dworshak Reservoir. The remaining free-flowing portions of the North Fork and the Little North Fork flow into the Dworshak pool. Many lower tributaries of the Little North Fork are reported to have salmonid spawning and cold water biota uses potentially at risk. Forest roading and timber harvesting are reported as responsible for sedimentation and thermal modification, as well as flow and habitat alterations. Similar impacts to the beneficial uses by identical causes are reported for the Little North Fork of the Clearwater.

Tributaries to the pool and the reservoir are reported to have salmonid spawning and primary contact recreation uses partially supported or potentially at risk. Rangeland, forest roading and timber harvesting activities and some non-irrigated crop production have been reported as sources of sediment, bacteria, and thermal modification, as well as flow and habitat alterations. Although the North Fork of the Clearwater has forest roading, timber harvesting, and rangeland, beneficial uses are supported and nonpoint source pollutants have not been reported.

Potlatch River

The Potlatch River system enters the Clearwater below the North Fork. The Potlatch and its tributaries are reported to have potentially at risk or non-supported domestic water supplies and primary contact recreation. Salmonid spawning, cold water biota, and secondary contact recreation are partially supported or potentially at risk. Non-irrigated crop production, rangeland, forest roading, timber harvesting, and feedlots are responsible for nutrients, sediment, bacteria, and temperature modification as well as flow and habitat alterations.

Mainstem Clearwater River

The tributaries to the lower mainstem of the Clearwater River reflect the impacts to the Potlatch River system to their north. Non-irrigated crop production, rangeland, feedlots and forest roading, and timber harvesting together with some road construction and surface mining activities are reported to cause nonpoint source pollution. The primary pollutants are nutrients, bacteria, sediment, pesticides, synthetic organics, organic enrichment, and thermal modification as well as flow and habitat alterations. Domestic water supply, salmonid spawning, and primary contact recreation uses are reported partially or not supported. Cold water biota and, in some tributaries, warm water biota, agricultural water supply and secondary contact recreation are reported to be partially supported or potentially at risk.

The mainstem of the Clearwater River receives many tributaries with nonpoint source pollution impacts from irrigated and non-irrigated crop production, and rangeland activities. Although sediment has been reported as a problem in the mainstem, the river supports all its beneficial uses.

Snake River

The Snake River receives the Clearwater River at Lewiston. The Snake River above Lewiston receives two tributaries (Corral and Tammany creeks) which are reported to have nonpoint source impacts. Corral Creek is reported to have sedimentation problems as the result of rangeland activities. The creek is reported not to support salmonid spawning and only partially supports cold water biota. Tammany Creek has a variety of nonpoint source activities in its drainage, including irrigated and non-irrigated crop production, rangeland, and road construction. Nutrients, sediment, bacteria, and thermal modification are the primary nonpoint source pollutants. Flow and habitat alterations also impact streams in this watershed. Salmonid spawning and primary contact recreation are not supported, while agricultural water supply and secondary contact recreation are either partially supported or potentially at risk. The Snake River has grazing along its course, but no pollutants were reported and its uses are fully supported.

Palouse River

The Palouse system has its headwaters in Idaho and flows west into the state of Washington. The Palouse River basin has a number of nonpoint source activities which include non-irrigated crop production, rangeland, timber harvesting, forest roading, and feedlots. Activities such as landfills and onsite wastewater disposal systems add to the problems. The Palouse River and its tributaries have primary pollutants of nutrients, sediments, bacteria, and thermal modification, as well as flow and habitat alterations. Salmonid spawning, cold water biota, and primary contact recreation are reported as partially supported or potentially at risk. These uses as well as secondary contact recreation are not supported in the Palouse River. Warm water biota and agricultural water supply are reported as potentially at risk in the Palouse River.

The South Fork of the Palouse flows from Idaho to its confluence with the Palouse River in Washington. Non-irrigated crop production, rangeland, land development, and surface runoff are activities which are reported to affect the South Fork and its tributaries. Agricultural water supply and secondary contact recreation are reported as either partially supported or not supported. Pollutants are nutrients, sediment, bacteria, and thermal modification, as well as flow and habitat alterations.

Except for the Palouse and Potlatch River systems, most of the mainstem rivers of the Clearwater Basin do not have beneficial uses impaired by nonpoint source pollutants. This is primarily because the bulk of the flow of the Middle Fork and to a lesser extent from the North Fork of the Clearwater flow from wilderness lands or unroaded timberlands. Although the South Fork and many of the lower tributaries are affected to the point that many beneficial uses are not fully supported, the main river's flow is effectively able to dilute their impacts.

Summary of Nonpoint Source Activities - Streams

The primary source of impacts in the Clearwater Basin are from nonpoint source activities (Figure 30). Point sources are minor by comparison; however, municipal inputs on some small streams are significant (i.e. cities of Grangeville, Cottonwood, Troy).

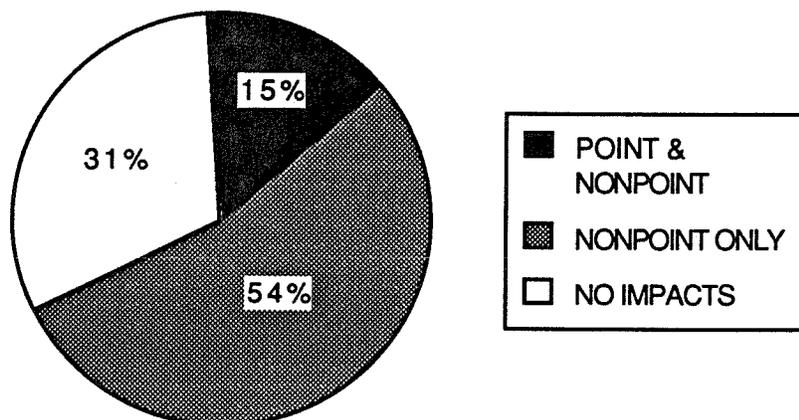


Figure 30. Clearwater River Basin Major Sources of Impacts to Streams

There were 1,524 stream miles assessed for nonpoint source impacts in the Clearwater Basin. The TAC reported that 1,141 miles of streams in this basin are impacted by agricultural activities (Figure 31), with 959 of these stream miles having impacts on beneficial uses (Figure 32).

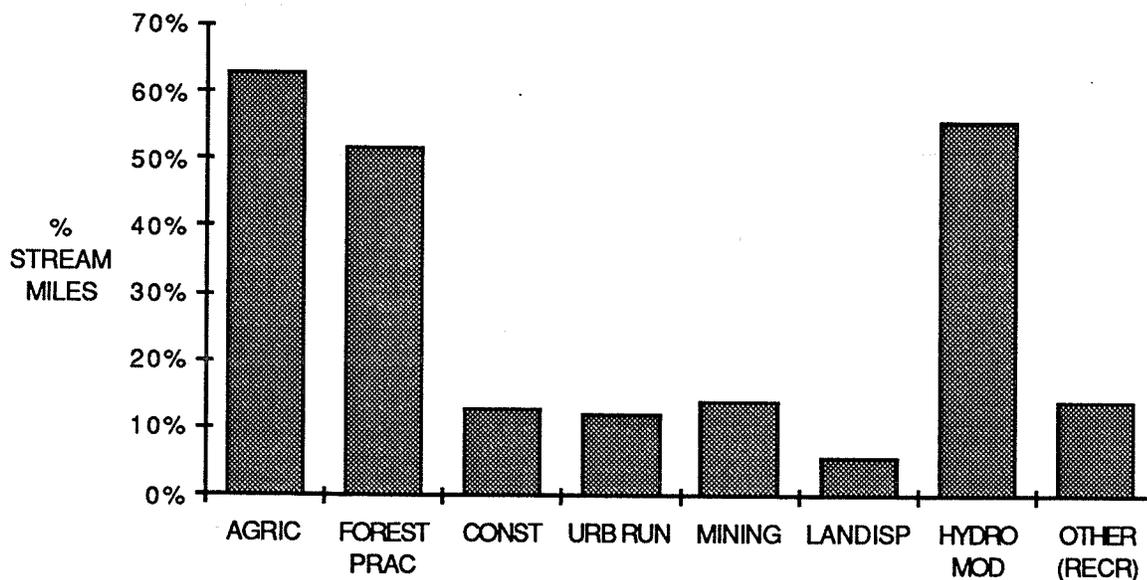


Figure 31. Nonpoint Source Activities Affecting Beneficial Uses in Clearwater River Basin Streams (Note: Some hydrologic/habitat modification impacts may occur as secondary impacts in conjunction with other activities, thus some stream miles may be included under hydrologic/habitat modification as well as under another nonpoint source activity.)

Non-irrigated crop production on the highly erosive soils of the Palouse are a major impact on water quality in the lower drainage. Grazing is also a water quality concern in this basin. The major pollutants from these activities are sediment, nutrients, and bacteria. There are 777 stream miles impacted by forest practices with 614 of the stream miles having impacts to beneficial uses. There are 731 stream miles being impacted by hydrologic/habitat modifications with 604 of these stream miles having impacts to beneficial uses. Construction activities are impacting 186 miles of streams in this basin with 149 of these miles having

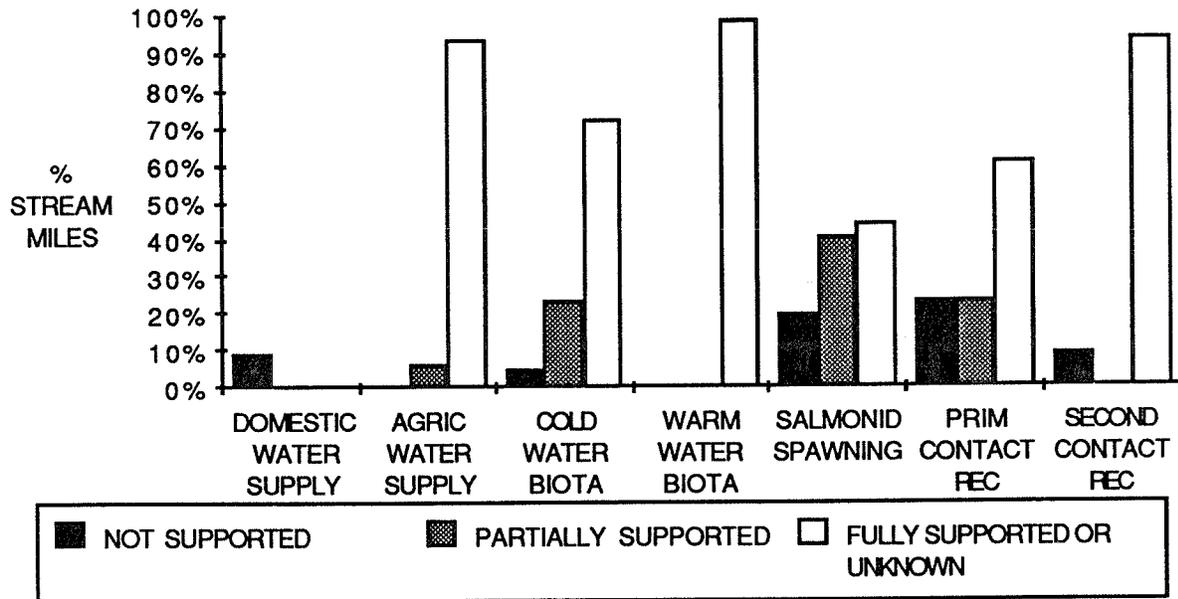


Figure 32. Beneficial Use Support Status in Clearwater River Basin Streams. (Note: "Fully Supported or Unknown" includes those streams in which beneficial uses are specifically designated in State Water Quality Standards or have been determined to exist and are fully supported, and those streams for which no information was provided on beneficial use support status).

impacts to beneficial uses. Mining activities are impacting 180 stream miles, with all of these streams having impacts to beneficial uses. There are 79 stream miles being impacted by land disposal activities with 39 of these miles having impacts to beneficial uses. Another 154 stream miles are impacted by other activities, primarily recreation, with 138 of these miles having impacts to beneficial uses.

Point Source Impacts

There are several municipal and industrial facilities with NPDES permits to discharge wastewater to streams in this basin. These are classified as "major" or "minor" discharges. A major municipal facility is defined as one with a permit to discharge one million or more gallons of wastewater per day and/or process wastewater for a community of 10,000 or more population. A major industrial facility is classified according to a rating system used by the EPA which considers the volume of wastewater discharged, the volume and flow characteristics of the receiving stream, and the composition of the wastewater being discharged.

There are two major municipal facilities with permits to discharge wastewater into the Clearwater River and one major municipal facility permitted to discharge into Paradise Creek. One major industrial facility is discharging into the North and Middle forks of the Clearwater River. There is one major industrial facility with a permit to discharge into Pinyon Creek, and one major industrial facility discharging into Quartz Creek. On the Snake River just below its confluence with the Clearwater River, one major industrial facility has a permit to discharge wastewater.

Summary of Nonpoint Source Activities - Lakes

Seven lakes were assessed in the Clearwater Basin totaling 17,578 acres. Dworshak Reservoir accounts for most of this acreage (17,090 acres) and was classed as oligotrophic. Each of the remaining six lakes were eutrophic and one was mesotrophic. Most of these small more productive lakes are used for irrigation water storage, with the exception of Winchester Lake.

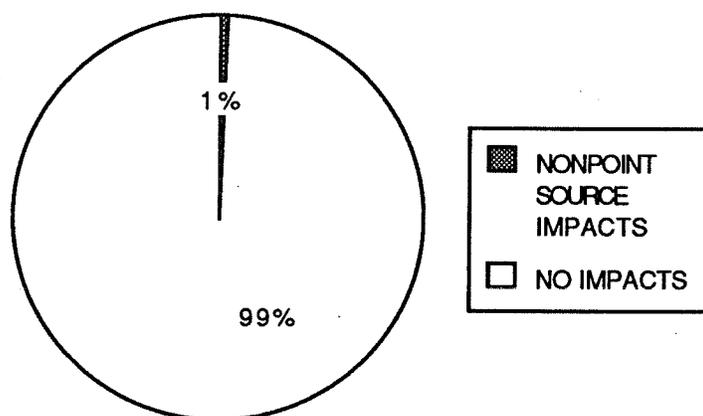


Figure 33. Major Sources of Impacts to Clearwater River Basin Lakes

Sources of impact to the smaller lakes are from nonpoint source activities and include agriculture and forest practice activities (Figure 34). Nutrients, sediment, and bacteria impact water quality from agriculture. Late summer draw-down for irrigation also causes temperature problems. Pollutants of concern from forest practices include sediment and temperature alterations. Habitat alteration exacerbates these pollutant impacts.

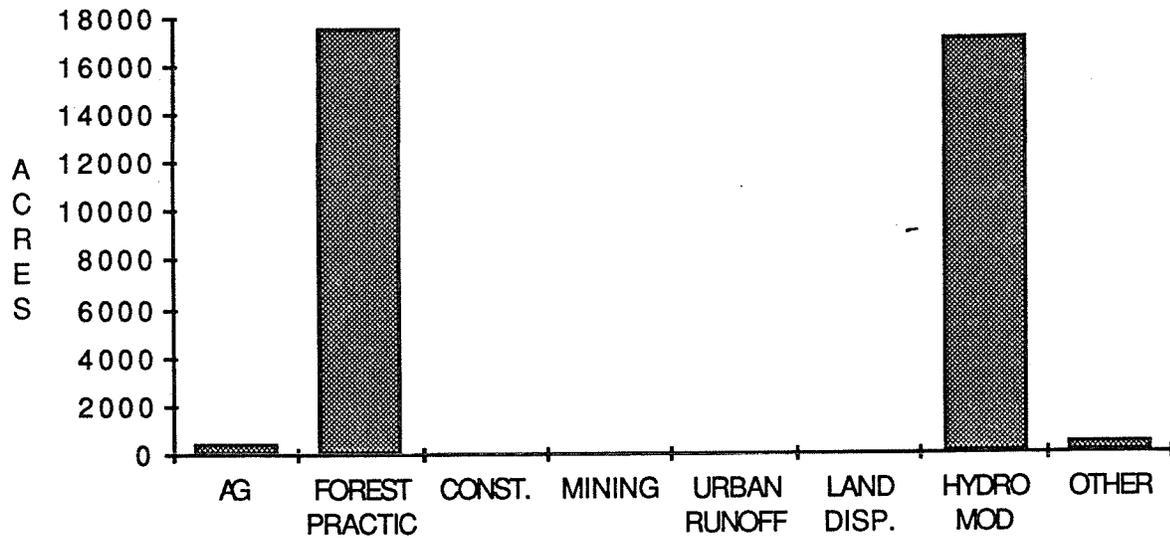


Figure 34. Nonpoint Source Activities Affecting Beneficial Uses in Clearwater River Basin Lakes

Beneficial uses of concern in these small lakes include domestic water supply, cold water biota, salmonid spawning, and primary and secondary contact recreation (Figure 35). Problems with algae blooms and low dissolved oxygen concentrations have been particularly well documented in Winchester Lake (Moeller, 1987). Currently, Winchester Lake is being evaluated for restoration under a Phase I grant through the EPA Clean Lakes Program. Assessment of use support status varied from supported but potentially at risk to not supported, depending on the use category.

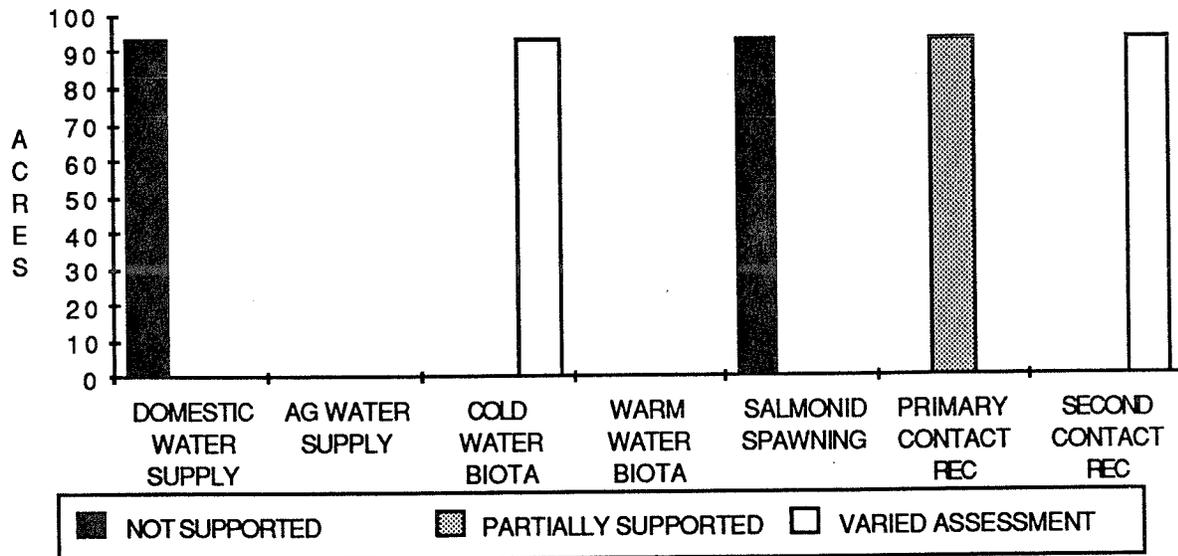


Figure 35. Beneficial Uses Not Fully Supported in Clearwater Basin Lakes

PANHANDLE BASIN

Basin Description

The Panhandle Basin is located in North Idaho and includes three separate sub-basins: part of the Kootenai River and Pend Oreille River drainages, and most of the Spokane/Coeur d'Alene River drainage (Figure 36). The basin includes Boundary, Bonner, Kootenai, Benewah, and Shoshone counties and covers approximately 7,500 square miles.

The Kootenai River includes only a small drainage area in Boundary county. Most of the watershed is located in Montana and British Columbia. Priest River is the major tributary to the Pend Oreille River in Idaho. The upper reaches of the Spokane River drainage lie in Idaho located west of the Bitterroot Mountain Range. Major tributaries are the St. Maries, St. Joe, and Coeur d'Alene rivers.

The area is characterized by rugged topography with elevation ranging from 2,000 feet in the lower valleys to 8,000 feet along the eastern edge in the mountains. The majority of the area is covered by coniferous forests. The Rathdrum Prairie in Kootenai county forms the most extensive crop production in the basin. The Panhandle Basin contains some of the highest quality natural environments in Idaho. The St. Joe River is part of the National Wild and Scenic River systems. The basin contains many high quality lakes such as Priest and Pend Oreille.

Principal urban areas in the basin are Coeur d'Alene, St. Maries, Sandpoint and towns along the South Fork of the Coeur d'Alene River. The economy of the basin is supported primarily by timber harvesting, mining, agriculture, and recreation.

Assessment Procedure

There were 1,822 stream miles assessed for nonpoint source impacts in this basin. Ambient monitoring data was used to calculate a "Water Quality Index" (WQI) and a "Water Quality Profile" (Table 10 on page 65) on 13 stream segments in the basin.

Additional information was solicited from the TAC and DEQ and consists of both monitored and evaluated data. For the purposes of this report, monitored data is objective information of current (within the past five years) site-specific ambient conditions. Evaluated data is information other than site-specific ambient data and includes assessments based on chemical or biological information which is older than five years, predictive modelling, surveys and inventories by land management agencies, perception, and best professional judgment by natural resource professionals. The discussion of water quality conditions from assessed information in this basin is based on monitored data on 75 stream miles and evaluated data on 1,422 stream miles.

Results - Water Quality Index

The WQI is calculated from ambient data collected at least quarterly in a complete water year during the period of record, October 1982 to October 1987. Table 14 on page 102 displays the WQI for the monitoring stations located on stream segments in this basin. The "Average WQI" is an average value for each parameter during the period of record. The "Overall Station Conditions" is an average value using all parameters for the period of record, with an average value for the worst three months shown in parentheses. The overall descriptive rating is based on the worst three consecutive months, which is the value shown in parentheses. A more complete description of the calculation of the WQI is included in the section titled "Materials and Methods" on page 3.

Data from nine monitoring stations in the Panhandle Basin were used in assessing current water quality conditions. Results of data analysis are shown in the Panhandle River Basin Water Quality Profile (Table 12).

The Kootenai River at Porthill is rated good with fair ratings for pH and metals. Downstream at Copeland, the Kootenai is still good but with fair ratings for metals and bacteria. The Clark Fork River at Cabinet Gorge is rated fair due to metals toxicity. The Pend Oreille River overall is rated good but has fair ratings for elevated temperature and metals. The Coeur d'Alene River at Enaville is rated poor primarily due to a poor rating for metals and a fair rating for nutrients. The mainstem Coeur d'Alene at Enaville is rated good with fair ratings for oxygen and pH. At Rose Lake, the Coeur d'Alene has declined to fair due to a poor rating for metals. The St. Joe River at St. Maries is rated good, but the Spokane River at Post Falls is fair due to excessive temperature and metals.

Table 12. Panhandle Basin Water Quality Profile

Station: Kootenai River at Porthill Segment #: PB-30K Storet #: 1232200

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	9	19	good	31	14 (21) good
Oxygen	5	9	good	19	
pH	9	21	fair	19	
Bacteria	9	17	good	17	
Trophic Status	7	14	good	18	
Aesthetics	2	3	good	17	
Solids	8	15	good	21	
Metal Toxicity	24	25	fair	11	
Ammonia Toxicity	2	6	good	18	

Last Sampled: 9/30/86

Station: Kootenai River near Copeland Segment #: PB-30K Storet #: 12318500

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	7	10	good	12	16 (26) good
Oxygen	3	5	good	6	
pH	4	8	good	6	
Bacteria	16	26	fair	6	
Trophic Status	7	11	good	6	
Aesthetics	2	3	good	6	
Solids	-	-	-	0	
Metal Toxicity	28	35	fair	4	
Ammonia Toxicity	0	1	good	6	

Last Sampled: 9/30/83

Station: Clark Fork River at Cabinet Gorge Dam Segment #: PB-10P Storet #: 2000256

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	10	18	good	13	21 (26) fair
Oxygen	6	10	good	10	
pH	4	6	good	75	
Bacteria	1	4	good	13	
Trophic Status	5	6	good	75	
Aesthetics	1	2	good	73	
Solids	2	3	good	74	
Metal Toxicity	41	51	fair	77	
Ammonia Toxicity	0	0	good	12	

Last Sampled: 9/22/87

Station: Pend Oreille River at Newport Segment #: PB-30P Storet #: 151028

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	6	21	fair	69	8 (14) good
Oxygen	4	8	good	69	
pH	6	9	good	70	
Bacteria	1	2	good	69	
Trophic Status	4	5	good	61	
Aesthetics	2	3	good	68	
Solids	2	4	good	68	
Metal Toxicity	23	34	fair	12	
Ammonia Toxicity	0	1	good	64	

Last Sampled: 9/30/87

Station: SF Coeur D' Alene R at Enaville Segment #: PB-140S Storet #: 151018

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	4	10	good	10	62 (70) poor
Oxygen	1	3	good	11	
pH	9	19	good	12	
Bacteria	4	7	good	12	
Trophic Status	18	35	fair	12	
Aesthetics	5	12	good	12	
Solids	3	5	good	12	
Metal Toxicity	100	100	poor	12	
Ammonia Toxicity	1	5	good	10	

Last Sampled: 9/14/83

Station: Coeur D' Alene R. at Enaville Segment #: PB-10S Storet #: 151186

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	8	14	good	10	11 (17) good
Oxygen	13	23	fair	10	
pH	9	25	fair	12	
Bacteria	1	5	good	12	
Trophic Status	5	8	good	12	
Aesthetics	1	3	good	12	
Solids	4	9	good	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	1	2	good	12	

Last Sampled: 9/14/83

Station: Coeur D' Alene R. at Rose Lake Segment #: PB-20S Storet #: 151100

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	9	18	good	10	53 (57) fair
Oxygen	6	8	good	9	
pH	6	15	good	12	
Bacteria	2	3	good	12	
Trophic Status	7	13	good	12	
Aesthetics	2	4	good	12	
Solids	3	6	good	12	
Metal Toxicity	91	100	poor	12	
Ammonia Toxicity	0	0	good	12	

Last Sampled: 9/14/83

Station: St. Joe River at St. Maries Segment #: PB-330S Storet #: 151014

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	8	14	good	12	8 (11) good
Oxygen	8	12	good	11	
pH	7	17	good	12	
Bacteria	5	13	good	12	
Trophic Status	4	6	good	12	
Aesthetics	2	4	good	12	
Solids	4	5	good	12	
Metal Toxicity	20	20	good	12	
Ammonia Toxicity	0	0	good	12	

Last Sampled: 9/14/83

Station: Spokane River at Post Falls Segment #: PB-40S Storet #: 151185

Pollutant Category	Average WQI	Worst 3 Mo. WQI	Water Quality Rating	Obs. #	Overall Station Conditions
Temperature	11	21	fair	69	29 (36) fair
Oxygen	11	15	good	69	
pH	4	5	good	70	
Bacteria	3	6	good	65	
Trophic Status	4	6	good	64	
Aesthetics	2	3	good	68	
Solids	2	3	good	68	
Metal Toxicity	52	65	fair	31	
Ammonia Toxicity	0	0	good	65	

Last Sampled: 9/30/87

Results - Assessed Information

The discussion of water quality in this basin is based on monitored data for 75 stream miles and evaluated data on 1,422 stream miles submitted by the TAC and DEQ. DEQ estimates that approximately half of the total stream miles in this basin were assessed for nonpoint source impacts. This includes the major perennial streams in the basin and some intermittent streams. Smaller perennial streams and most intermittent streams were not assessed. This discussion is based upon information separate from the monitored data used to calculate the WQI. The WQI provides a description of water quality conditions from monitored data collected between October 1982 to October 1987. Other monitoring data collected within the last five years and evaluated information were used for this portion of the report.

The Panhandle Basin is composed of three major river basins; the Kootenai, Pend Oreille and Spokane basins. Hangman, Little Hangman, the North Fork of Rock Creek and Spirit Creek flow directly from the Panhandle Basin to the state of Washington.

Submitters who provided information on streams for this report made an assessment of the degree of beneficial use support in streams being impacted by nonpoint source pollution. Beneficial uses were assessed as "not supported," "partially supported," or "potentially at risk" (see definitions in Appendix A). Those streams which were rated "potentially at risk" were presumed by submitters to fully support their beneficial uses but were anticipated to experience some level of beneficial use impairment by nonpoint source pollution in the future. Future impacts could be the result of the cumulative effects of ongoing activities, adverse trends, or the result of anticipated activities.

Kootenai River Drainage

The Kootenai River enters Idaho from Montana and exits to the north into Canada. Its first major tributary in Idaho is the Moyie River. The Moyie River watershed is impacted by forest roading and timber harvesting activities. Some non-irrigated crop production and rangeland activities occur in the Moyie River valley. Sediment and habitat alteration are the primary pollutants in this watershed. Cold water biota is partially supported, while salmonid spawning is not supported. All other uses are potentially at risk in the Moyie River watershed.

Deep Creek joins the Kootenai River at Bonners Ferry. Deep Creek is impacted by forest roading, timber harvesting, and activities associated with subsurface mining. Non-irrigated crop production, specialty crop production, and rangeland activities occur in the Deep Creek valley. The primary pollutant reported is sediment, but nutrient is also a problem in Deep Creek. Cold water biota and salmonid spawning are partially or not supported, while most other uses are supported or potentially at risk.

The Kootenai River above Bonners Ferry is impacted by non-irrigated agriculture, grazing and forest practices. Near Bonners Ferry storm and urban runoff also affect the river. Nutrient and sediment as well as flow and habitat alteration are reported as problems with this reach. Cold water biota and salmonid spawning are partially supported, while domestic water supply and primary contact recreation are reported as potentially at risk.

Below Bonners Ferry several tributaries of the Kootenai are impacted by forest practice activities and some mining and small dam construction. Primary pollutants include sediment, thermal modification, and flow and habitat alteration. Where mining was practiced on Boundary and Blue Joe creeks, metals and pH are also reported. Cold water biota and salmonid spawning are partially supported or potentially at risk on all these streams.

The Kootenai River below Bonners Ferry is impacted by irrigated and non-irrigated crop production and rangeland activities with associated bank destabilization and flow regulation. Nutrients and sediment as well as flow alteration and hydrologic/habitat modification are reported as problem pollutants. Cold water biota and salmonid spawning are partially supported.

Pend Oreille River Drainage

The Clark Fork River enters Idaho from Montana and flows a short distance to Lake Pend Oreille. Forest roading, timber harvesting and some rangeland activities are the nonpoint source activities reported on its tributaries. Sediment, nutrients, flow alteration and hydrologic/habitat modification are the primary pollutants. Cold water biota is partially supported, and salmonid spawning are partially supported in these creeks.

The Clark Fork has irrigated and non-irrigated crop production, rangeland, with associated bank destabilization, and forest practice activities reported. These activities have caused sediment and nutrient pollution as well as flow and habitat alteration. Cold water biota and salmonid spawning beneficial uses are reported to be potentially at risk.

The Pack River is a major tributary to Lake Pend Oreille. The Pack River watershed is affected primarily by forest practice activities and by non-irrigated crop production, rangeland, and on-site wastewater disposal along the river. Sediment and nutrients are reported to be the primary pollutants of concern in the tributaries, but organic enrichment, bacteria, habitat alteration, and pesticides are added to the list for the Pack River. Cold water biota and salmonid spawning beneficial uses are generally reported to be potentially at risk. In the lower Pack River domestic water supply, cold water biota and salmonid spawning are partially supported. Other resources are potentially at risk.

Some of the Pend Oreille Lake's tributaries are affected by irrigated crop production, rangeland, forest practices, and on-site wastewater disposal. Nutrients, sediment, organic enrichment, bacteria, and habitat alterations are the pollutants reported. Cold water biota and salmonid spawning are potentially at risk.

The Priest River is the largest tributary to the Pend Oreille River. The upper reach of the river and its tributaries are impacted by forest practices. Sediment and nutrients are the primary pollutants. All beneficial uses are supported, but cold water biota and salmonid spawning are reported as potentially at risk.

Priest Lake separates the upper and lower Priest rivers. The lake's tributaries are impacted by forest practice activities. Sediment and nutrients are the primary pollutants. Beneficial uses are reported as generally supported or potentially at risk. The exception is Lamb Creek, where cold water biota is partially supported and salmonid spawning is not supported.

The lower Priest River and its tributaries are impacted by irrigated and non-irrigated crop production and rangeland, and forest practice activities. Sediment, nutrients and habitat alteration, and streambank modification are the primary pollutants. Beneficial uses are supported, but cold water biota and salmonid spawning are partially supported or not supported in Binarch Creek and the East River.

The Pend Oreille River has irrigated and non-irrigated crop production, rangeland, forest practice, and on-site wastewater disposal impacts. Nutrients, sediment, bacteria, and thermal modification, as well as flow and habitat alteration are reported as the primary pollutants. Cold water biota use is reported as partially supported, while salmonid spawning is not supported and domestic water supply is potentially at risk.

Spokane River Drainage

The St. Joe River and its major tributary, the St. Maries River, are the southernmost drainages of the Spokane River Basin. Some upper St. Joe River tributaries are reported to be affected by forest road construction and maintenance, and timber harvesting activities. The Big Creek watershed also has some grazing and on-site wastewater disposal in its basin. Sediment is the primary pollutant. In Big Creek, bacteria and nutrients are also reported as concerns. Cold water biota is partially supported or potentially at risk in these drainages, while salmonid spawning is partially supported or not supported.

The upper St. Joe is primarily impacted by forest practices and small amounts of irrigated and non-irrigated crop production and rangeland activities. Highway construction and maintenance are reported activities. Sediment is the primary pollutant in this reach. Cold water biota and salmonid spawning are potentially at risk in the upper St. Joe River.

The St. Maries River joins the St. Joe River a short distance above the mouth. St. Maries River tributaries and the West Fork of the St. Maries River are impacted by non-irrigated crop production, rangeland, and forest practices. Occasionally, on-site wastewater disposal and placer and dredge mining are reported. The primary pollutants are sediment and habitat alteration; however, nutrients, bacteria, and organic enrichment are a problem in some tributaries. Cold water biota is reported to be partially supported in many of these tributaries, while salmonid spawning is partially supported or not supported.

The St. Maries River and the lower St. Joe River have impacts from irrigated and non-irrigated crop production, rangeland, specialty crop production, animal holding areas, forest road construction and maintenance, timber harvesting, storm and surface water runoff, and on-site wastewater disposal activities. Primary pollutants are nutrients, sediment, bacteria, organic enrichment, thermal modification, and flow and habitat alteration. Cold water biota and salmonid spawning are reported as partially supported in the St. Maries River. Cold water biota, salmonid spawning, agricultural water supply and primary contact recreation are reported as potentially at risk in the lower St. Joe River.

The St. Joe River flows into Chatcolet Lake, which is connected to Coeur d'Alene Lake. Two small tributaries to Chatcolet Lake, Plummer and Benewah creeks are reported to be impacted by non-irrigated crop production, rangeland, animal holding areas, and some forest practice activities. Sediment is the pollutant of concern in both streams, but nutrients, organic enrichment, and habitat alteration are also problems. Cold water biota is reported to be supported but potentially at risk in Benewah Creek.

Coeur d'Alene River - Upper Reaches

The Coeur d'Alene River is the other major tributary to Coeur d'Alene Lake. The upper watershed tributaries are impacted by rangeland, forest road construction and maintenance, timber harvesting, placer and dredge mining, and highway maintenance. The primary pollutants are sediment and habitat alteration. Where placer and dredge mining have occurred, metals and occasionally pH are pollutants. On isolated streams with rangeland activities, nutrients, bacteria, and organic enrichment are pollutants. Cold water biota is partially supported in most tributaries, while salmonid spawning is either partially supported or not supported.

The upper Coeur d'Alene River has rangeland, forest road construction and maintenance, timber harvesting, placer mining, and highway maintenance activities. Sediment as well as flow and habitat alteration are reported as water quality problems. Cold water biota is reported to be partially supported in these reaches. Salmonid spawning is partially supported.

Coeur d'Alene River - North Fork

The North Fork of the Coeur d'Alene River and its tributaries are impacted by forest road construction and maintenance, timber harvesting, and by some irrigated and non-irrigated crop production activities along the North Fork itself. Sediment is the pollutant of concern on the tributaries to the North Fork, with flow and habitat alteration additional problems in the North Fork. Cold water biota is reported to be partially supported in the drainage, while salmonid spawning is partially or not supported.

Coeur d'Alene River - South Fork

The South Fork of the Coeur d'Alene River is affected by over a hundred years of mining and metal smelting in the Silver Valley. Above Mullan, the river is impacted by grazing and mine tailings storage. Sediment, pH, metals, and habitat alteration are the water quality problems reported. However, the impacts are not as dramatic as in the lower reaches of the South Fork. Cold water biota and salmonid spawning are potentially at risk. The lower reaches of the South Fork and its tributaries are impacted by nonpoint source activities, including mining and mill tailings storage, activities associated with subsurface mining, surface runoff, forest practices, agriculture, and highway maintenance. Sediment, pH, metals, and habitat alteration are the water quality problems reported. Nutrients and bacteria are added to the list where agriculture is a major land use along upper Pine Creek. None of the beneficial uses are supported in some segments of the South Fork, but cold water biota and salmonid spawning are partially supported in some of the tributaries and some reaches of the river. Agricultural water supply is not supported in the South Fork Coeur d'Alene, below Mullan.

Coeur d'Alene River - Mainstem

The mainstem of the Coeur d'Alene River and its tributaries are impacted by non-irrigated crop production, rangeland, and forest practices with land development, urban and storm sewer runoff, mill tailings, and highway maintenance activities reported for the river corridor. Sediment and habitat alterations are the major nonpoint source problems reported for the tributaries, but nutrient, pH and metals are also problems in the river. Cold water biota is either partially supported or potentially at risk. Salmonid spawning is partially supported in some reaches. Agricultural water supply is partially supported in Black Lake.

Coeur d'Alene Lake receives many small tributaries which are impacted by agriculture, forest practices, waste storage, urban runoff, and highway maintenance. Nutrient and sediment are the major pollutants of concern, but oils, organic enrichment, and habitat alteration are problems in isolated creeks. Cold water biota is potentially at risk in most of these creeks. Salmonid spawning is not supported in Fernan Lake and Cedar Creek and is only partially supported in Lake Creek.

The Spokane River drains Coeur d'Alene Lake and flows west into Washington. Rathdrum Creek flows toward the Spokane River near the border. Rathdrum Creek and its tributaries are impacted by irrigated and non-irrigated crop production, rangeland, feedlots, forest practices, and land development. Nutrient, sediment, organic enrichment, and habitat alteration are the identified nonpoint source problems. Cold water biota is partially supported, while salmonid spawning is partially supported or not supported. Agricultural water supply is partially supported in Fish Creek. Other uses are potentially at risk.

The Spokane River is impacted by irrigated and non-irrigated crop production, rangeland, land development, timber harvesting, log storage and milling, storm sewer and urban runoff, and on-site wastewater disposal. Primary pollutants include nutrient, sediment, organic

enrichment, bacteria and oils and grease. Habitat alteration is also reported. Cold water biota use is reported to be partially supported, while domestic water supply is potentially at risk.

Hayden and Hauser Lake Drainages

The Hayden Lake and Hauser Lake watersheds are impacted by irrigated and non-irrigated crop production, rangeland, land development, urban surface runoff, on-site wastewater disposal, and forest practices. Primary pollutants include nutrients, sediment, organic enrichment, bacteria and habitat alteration. Salmonid spawning and cold water biota are generally reported to be potentially at risk in these drainages. Salmonid spawning is partially supported or not supported in the lakes. Domestic water supply, warm water biota, cold water biota, and primary contact recreation are potentially at risk.

Hangman Creek Drainage

The Hangman Creek watershed is impacted by non-irrigated crop production and rangeland activities as well as some irrigated agriculture and forest practices. Sediment is the primary pollutant, but bacteria, nutrient and habitat alteration are also problems on Hangman Creek. Cold water biota is not supported in Hangman Creek. Agricultural water supply is potentially at risk. Agricultural water supply and cold water biota are not supported on Little Hangman Creek.

Summary of Nonpoint Source Activities - Streams

Water quality impacts in the Panhandle Basin are predominantly of nonpoint source origin (Figure 37). Point sources include industrial impacts associated with permitted mining discharges in the Silver Valley area and a few municipal treatment waste discharges.

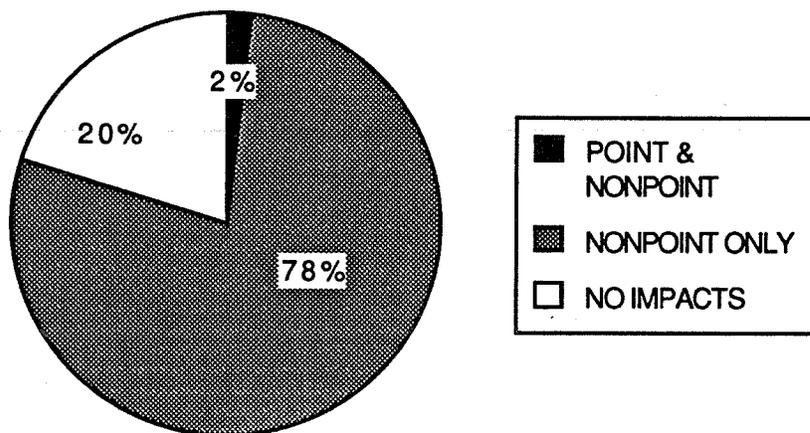


Figure 37. Panhandle Basin Major Sources of Impacts to Streams

There were 1,822 stream miles assessed for nonpoint source impacts in this basin. Forest practices and agriculture present the greatest threats to water quality (Figure 38). The TAC reported that 1,176 stream miles have impacts from forest practices with 795 of these stream miles having impacts to beneficial uses (Figure 39). There are 953 stream miles with

agricultural impacts with 537 of these stream miles having impacts to beneficial uses. Hydrologic/habitat modifications are impacting 439 stream miles with 385 of these stream miles having impacts to beneficial uses. Mining activities are impacting 273 miles of streams with 213 of these stream miles having impacts to beneficial uses.

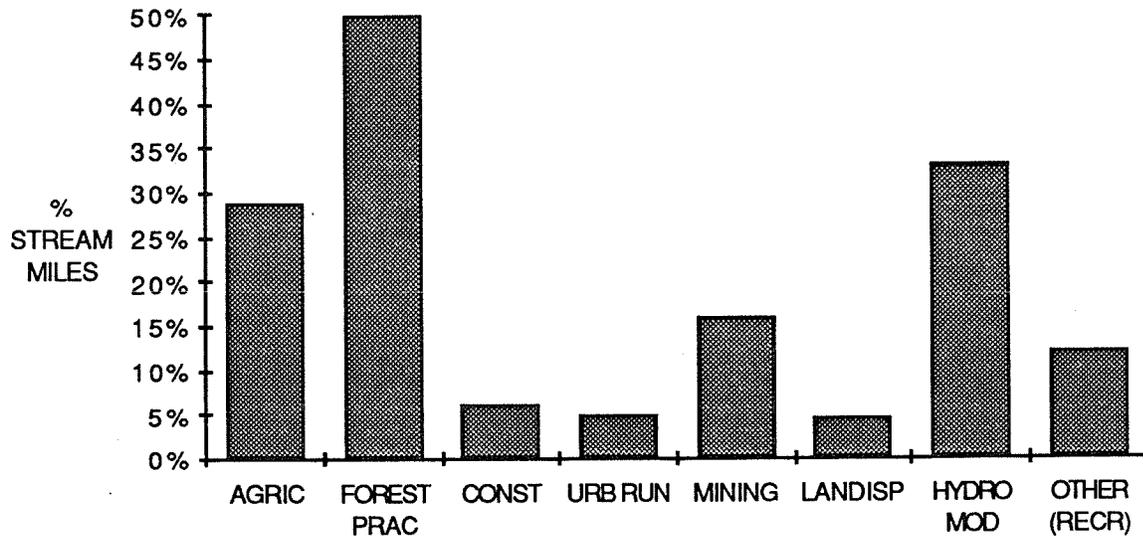


Figure 38. Nonpoint Source Activities Affecting Beneficial Uses in Panhandle Basin Streams. (Note: Some hydrologic/habitat modification impacts may occur as secondary impacts in conjunction with other activities, thus some stream miles may be included under hydrologic/habitat modification as well as under another nonpoint source activity.)

There are 168 stream miles being impacted by construction activities with 107 of these miles having impacts to beneficial uses. Land disposal activities are impacting 192 stream miles with 139 of these miles having impacts to beneficial uses. Another 366 stream miles are being impacted by other activities, primarily recreation, with 278 of these miles having impacts to beneficial uses.

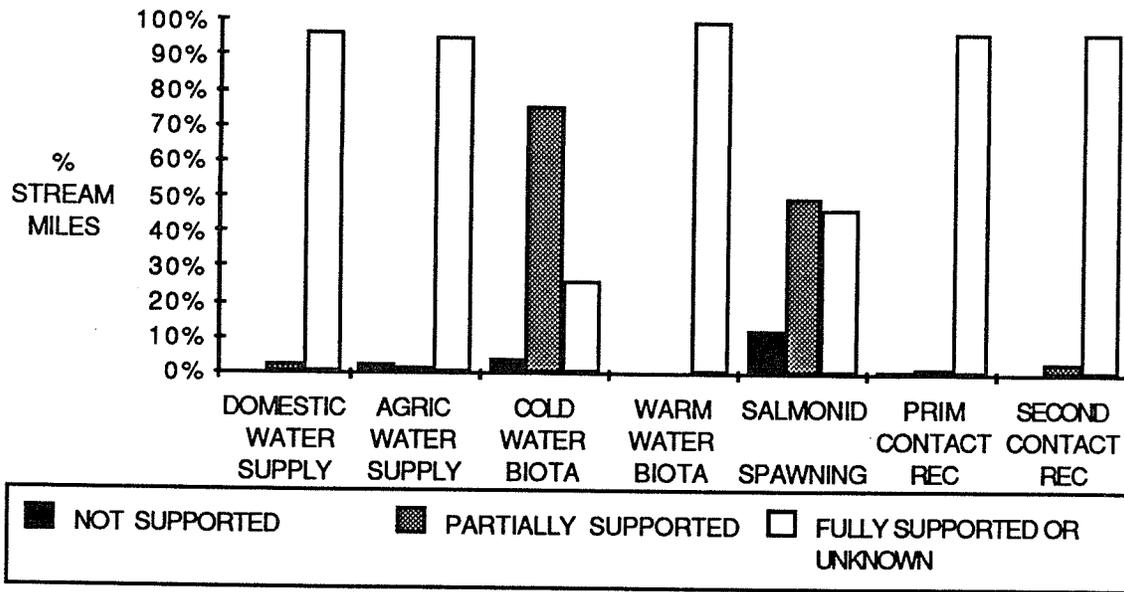


Figure 39. Beneficial Use Support Status in Panhandle Basin Streams. (Note: "Fully Supported or Unknown" includes those streams in which beneficial uses are specifically designated in State Water Quality Standards or have been determined to exist and are fully supported, and those streams for which no information was provided on beneficial use support status).

Point Source Impacts

There are several municipal and industrial facilities with NPDES permits to discharge wastewater to streams in this basin. These are classified as "major" or "minor" discharges. A major municipal facility is defined as one with a permit to discharge one million or more gallons of wastewater per day and/or process wastewater for a community of 10,000 or more population. A major industrial facility is classified according to a rating system used by the EPA which considers the volume of wastewater discharged, the volume and flow characteristics of the receiving stream, and the composition of the wastewater being discharged.

There is one major municipal facility discharging into the Pend Oreille River and one discharging into Anderson Slough. There is one major municipal facility discharging into the Spokane River and one discharging into the South Fork of the Coeur d'Alene River. There are three major industrial facilities with permits to discharge wastewater into the South Fork of the Coeur d'Alene River and two facilities permitted to discharge into tributaries of the South Fork of the Coeur d'Alene, one into Lake Creek and one into Canyon Creek. One major industrial facility has a permit to discharge wastewater into Daly Gulch Creek, and one is permitted to discharge into Big Creek. The St. Joe River has one major industrial facility with a permit to discharge wastewater.

Summary of Nonpoint Source Activities - Lakes

Over sixty percent of the lake acres assessed for this report are in the Panhandle Basin. In contrast to other parts of the state, the majority of lakes in northern Idaho are natural.

The state's largest lakes are located in this basin. Of the 446,901 acres assessed, 27 percent are oligotrophic and 72 percent are mesotrophic. The remaining one percent represents several small eutrophic lakes.

The primary source of pollutants to lakes in this basin are from nonpoint source activities (Figure 40). Specific activities impacting lake water quality are in contrast to other parts of the state. There is a great deal of primary and recreational home development around lakes in this basin. As a result, water quality impacts from construction, urban runoff, and subsurface sewage disposal occur (Figure 41).

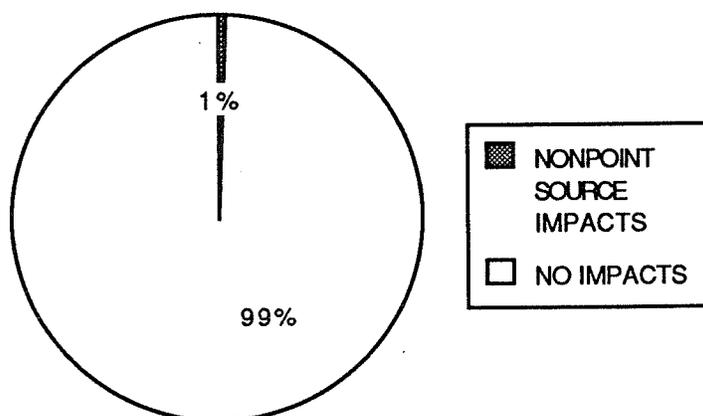


Figure 40. Major Sources of Impacts to Panhandle Basin Lakes.

The geographic setting of lakes in this basin also accounts for a greater diversity in sources of water quality impacts. Many lakes are located in forested watersheds and have been affected by previous or current forest practice activities. Significant mining has occurred in the upper drainages of Lake Pend Oreille and Coeur d'Alene Lake that impacts water quality. Point and nonpoint source mining impacts occur. Agricultural activities have also been reported to impact lake water quality. Specific sources include dryland and irrigated agriculture and rangeland.

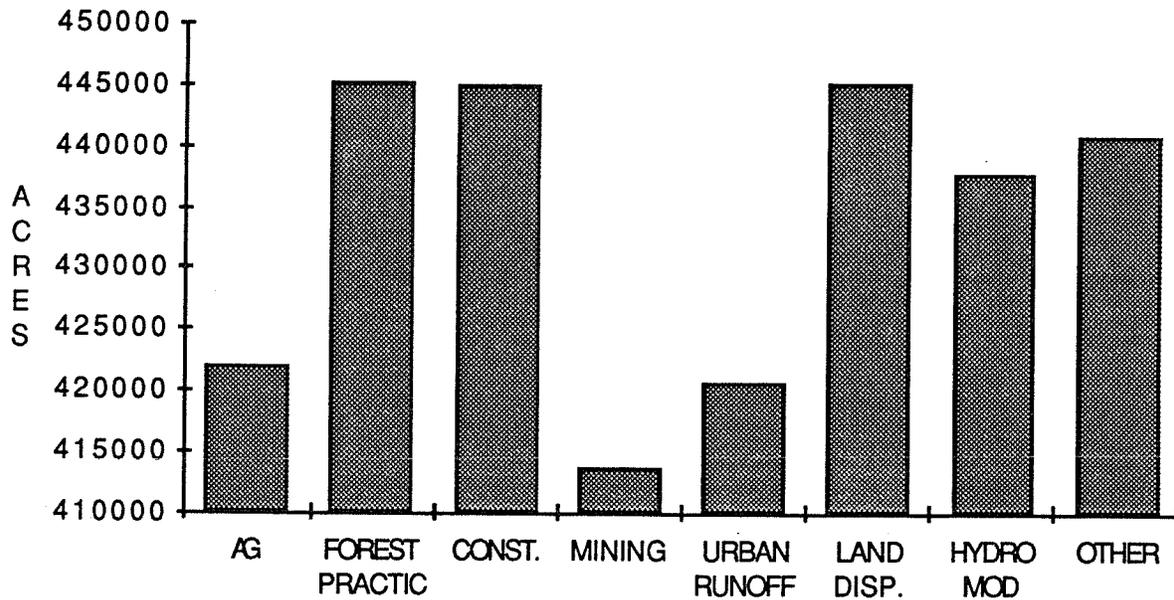


Figure 41. Nonpoint Source Activities Affecting Beneficial Uses in Panhandle Basin Lakes.

Another source of impacts that may be operating in many of these lakes is internal nutrient recycling. Many lakes have the basin size, shape, depth, thermal characteristics, and external sources of enrichment that together make them susceptible to internal nutrient enrichment. Pollutants of greatest concern from the various activities affecting lake water quality are nutrients, sediment, and bacteria. Metals toxicity from mining activities has also been noted.

Beneficial uses reported to be less than fully supported include cold water biota and salmonid spawning (Figure 42). Agricultural water supply was reported as partially supported in Black Lake due to reported incidents of cattle poisoning from ingestion of toxic blue green algae (IDHW, 1985).

The majority of lakes in the Panhandle Basin were reported to fully support their uses but with concern the uses could be potentially at risk if water quality declines further

It is important to note that most of the lakes in this basin are classed as mesotrophic. There is widespread perception of degrading trends in the water quality of many of these lakes which could push them into the eutrophic class.

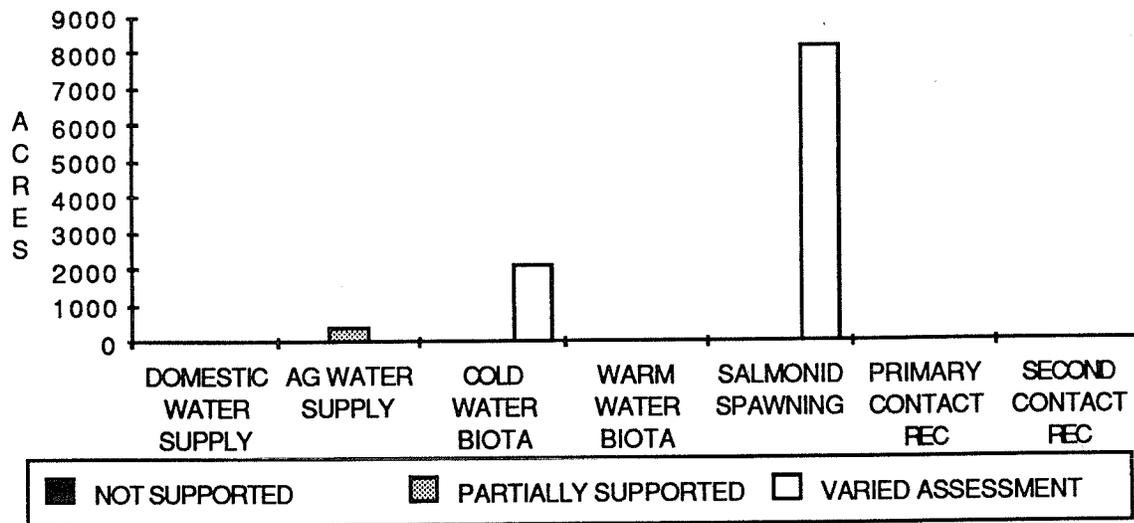


Figure 42. Beneficial Uses Not Fully Supported in Panhandle Basin Lakes.

WETLANDS

The EPA developed a list of priority wetlands for Idaho (see Materials and Methods on page 3), in collaboration with other state and federal agencies and interested groups. For the purposes of this report, the EPA made an assessment of nonpoint source impacts to priority wetlands.

Bear River Basin

There are eight priority wetland areas identified in the Bear Basin. The primary impacts to these wetlands are from agricultural activities, especially rangeland. There are additional impacts from petroleum activities, flow modification, dam construction, and other habitat alterations. Beneficial uses in these wetlands are partially supported for cold water biota and are partially supported or potentially at risk for secondary contact recreation. Agricultural activities have caused pollutants in these priority wetland areas including nutrients, organic enrichment, sediment, flow alteration, and other habitat alterations. Additional pollutants are oil and grease from petroleum activities. Hydrologic/habitat modification have resulted in nutrient and sediment pollution, organic enrichment, thermal modification, and flow alteration.

Upper Salmon River Basin

Fifty-five priority wetland areas have been identified in the Upper Snake Basin ranging from the largest wetland area in the state, the 200,000-acre Camas Creek/Hill City Marsh in Camas and Elmore counties, to the 10-acre Big Springs in Fremont county. Almost all of the wetlands in this basin are impacted by agricultural activities, especially rangeland. Most are also impacted by recreational activities, road or bridge construction, or land development. The Henry's Fork wetland area, straddling Jefferson, Madison, and Fremont counties, and the Island Park wetland in Fremont county are also impacted by on-site wastewater systems. The Big Lost River Basin wetland in Custer and Butte counties, the Thousand Springs Creek wetland in Custer county, the Camas Creek Meadows in Clark county, and the Marsh Creek wetland in Bannock county are additionally impacted by mining activities. Many of the priority wetlands in this basin only partially support or are potentially at risk for the beneficial uses of cold water biota

and primary and secondary contact recreation. Birch Creek wetland in Jefferson county and the Milner Reach wetland in Jerome and Twin Falls counties do not support primary contact recreation. The Portneuf River Basin wetland in Caribou and Bannock counties, the Raft River Valley wetland in Cassia county, the Big Lost River Basin wetland, and Thousand Springs Creek wetland only partially support salmonid spawning. Milner Reach does not support salmonid spawning.

Agricultural activities, hydrologic/habitat modifications and recreational activities have caused impacts to these priority wetlands. Primary pollutants include nutrients, sediment, salinity, thermal modification, flow alteration, and other habitat alterations. Some of these same pollutants, as well as alterations in pH, are also contributed by forest practice activities.

Southwest Basin

In the Southwest Basin, 17 priority wetland areas have been identified. Those whose size has been assessed include 5,000 acres of Big Springs Ranch in Owyhee county and 100 acres of the Payette River in Gem county near Black Canyon Reservoir. Almost all of the priority wetlands in this basin are impacted by agricultural activities, especially rangeland activities, hydrologic/habitat modifications, and recreational activities. Priority wetlands located along both the North and South forks of the Boise River are additionally impacted by forest practice activities. The North Fork wetland area is also impacted by placer mining activities. Many of the priority wetlands in this basin are also impacted by road or bridge construction and land development activities. Only two priority wetlands have suffered impacts to beneficial uses. On the Duck Valley Indian Reservation in Owyhee county and at the Barber Pool along the Boise River in Ada County, cold water biota and salmonid spawning are only partially supported. The Duck Valley wetland area additionally only partially supports both primary and secondary contact recreation. The priority wetlands in the Southwest Basin are primarily polluted by nutrients, sediment, and organic enrichment from agricultural activities. Flow alteration, and other habitat alterations are also occurring as a result of these agricultural activities. Hydrologic/habitat modifications are resulting in sedimentation, thermal modification, and flow alterations.

Salmon River Basin

In the Salmon Basin, 14 priority wetland areas have been identified. Of these, 10 are impacted by rangeland activities, and some of these are also impacted by forest practice activities. Many of these are also impacted by recreation and mining activities, especially placer mining. There are also some impacts to priority wetlands in this basin from hydrologic/habitat modifications. Only a few of these wetlands show a reduction in the support of beneficial uses as a result of these nonpoint source impacts. Stanley Basin in the Sawtooth National Recreation Area, and the East Fork Basin of the Salmon River only partially support cold water biota and salmonid spawning. The East Fork Basin also only partially supports primary and secondary contact recreation. Pinyon Basin in Custer county is potentially at risk for cold water biota and secondary contact recreation. The primary pollutants to the wetland areas in the Salmon Basin are nutrients, sediment, organic enrichment, alterations in pH, and thermal modification from agricultural activities, mining, and forest practice activities. Flow alteration and other habitat alterations are also being caused by these activities.

Clearwater River Basin

There are eight identified priority wetland areas in the Clearwater Basin. These are impacted primarily by forest practice activities, including road construction or maintenance. Additional impacts are from rangeland activities, road or bridge construction, hydrologic/habitat modification, and placer mining. Beneficial uses in these priority wetlands are potentially at risk for cold water biota, salmonid spawning, and primary and secondary contact recreation. Primary pollutants to the priority wetlands in this basin are sediment, thermal modification, and nutrients from agricultural and recreational activities, and hydrologic/habitat modifications. Mining activities contribute some of these same pollutants as well as alterations in pH. These same nonpoint source activities are also causing flow alteration and other habitat alterations.

Panhandle Basin

There are 33 identified priority wetland areas in the Panhandle Basin. These range from 880 acres of the Moyie River Basin in Boundary county to the 4,000-acre Clark Fork Delta Marsh in Bonner County. Almost half of the priority wetlands in this basin have not been assessed for size, but all have been assessed for nonpoint source impacts. These wetlands are impacted by a variety of activities. In the northern counties, Boundary, Bonner, and part of Kootenai, the impacts are primarily from forest practices, road or bridge construction, and land development. There are some agricultural and rangeland impacts in these wetlands also. In Benewah and Shoshone counties, the nonpoint source impacts are primarily from agricultural and rangeland activities. There are additional impacts to some priority wetlands in Boundary, Kootenai, and Shoshone counties from resource extraction, especially placer mining. The beneficial uses in the priority wetlands in the Panhandle Basin are partially supported or potentially at risk for cold water biota and secondary contact recreation. In addition, the Wolf Lodge Bay wetland area only partially supports salmonid spawning and does not support primary contact recreation. Primary pollutants to priority wetlands in this basin are nutrients and sediment from agricultural activities. Additional nutrients, sediment, pH alterations, and thermal modification are resulting from forest practice activities. Some of these same pollutants are added from construction and mining activities and hydrologic/habitat modifications as well. These same activities are also causing and flow alterations and other habitat alterations

GROUNDWATER QUALITY

The quality of most groundwater in Idaho is suitable for drinking, agricultural, and industrial uses. Very mineralized groundwater occurs naturally in localized areas statewide, particularly where influenced by geothermal water (Parliman, 1987a). Naturally occurring contaminants such as dissolved solids, fluoride, hardness, and arsenic may restrict water use because of health and aesthetic reasons.

Point Sources

Point sources of groundwater contamination are those sources which are individually identifiable in terms of point of release and zone of impact in the aquifer. Examples are surface spills, leaking underground tanks, and landfills.

The potential for contamination of Idaho's groundwater from point sources is high because the major aquifers are located in the areas of most intense land use. For example, most of Idaho's population lives over the Snake Plain, Rathdrum Prairie, and Boise Valley aquifers. Consequently, contamination sources associated with population density such as leaking underground tanks and transportation accidents tend also to be concentrated over these aquifers.

In general, where contamination from point sources has occurred in Idaho, the contamination is localized. In instances where water supply wells have been impacted, the contamination is generally limited to a small number of wells.

Records on spills and leaks that can or actually have resulted in groundwater contamination are tracked by DEQ in a computerized log. A summary of the groundwater contamination log is prepared annually (IDHW, 1988). Because groundwater contamination is often not readily detected without extensive study and in many cases, groundwater is not investigated in response to a spill or leak, some spills and leaks probably result in groundwater impacts that are not reported. Therefore, the log contains incidents where there is a potential for groundwater impact as well as incidents where actual contamination has been documented.

As of April 1, 1988, there were 357 recorded incidents of actual or potential contamination recorded in the log. The annual distribution of incidents is shown in Table 13. The greater number of incidents reported in the past five years reflects increased reporting and tracking and probably not an increase in the actual rate of spills and leaks.

Table 13. Groundwater Contamination Incidents by Year.

Year	Pre 1975	76	77	78	79	80	81	82	83	84	85	86	87
No. of Incidents	22	7	7	3	7	4	12	38	38	67	63	26	43

Incidents in the groundwater contamination log are listed by type of pollutant in Table 14. From this table it is clear that petroleum, including petroleum released from leaking underground tanks, is the primary contaminant of concern.

Table 14. Incidents by Contaminant Type.

<u>Contaminant Type</u>	<u>Number</u>
Petroleum spills (excluding underground tanks)	108
Leaking underground petroleum storage tanks	69
Hazardous material spills	102
Mining	4
Surface impoundments	8
Landfills	6
Land disposal	10
Injection wells	6
Agricultural activities	21
Septic systems	6

Regional Summaries - Point Sources

The following paragraphs provide summaries of some of the localized point sources of groundwater contamination to which DEQ has responded over the past five years. The discussions are listed by DEQ Field Office area.

Coeur d'Alene Area Office. One landfill is under investigation for potential groundwater impacts and several industrial sites are being looked at for possible contamination from solvents. Releases of petroleum from a leaking underground tank in Wallace and an aboveground tank in Coeur d'Alene have resulted in localized contamination. Pentachlorophenol and creosote derivatives have been detected in the groundwater at a pole treating facility in Sandpoint. In addition, a Superfund cleanup program is underway at a mining area in the Silver Valley where groundwater contamination has been found.

Lewiston Area Office. Shallow groundwater in Elk City was contaminated with cyanide when a heap leach facility was breached in 1984 and cyanide solution was released. A leaking underground tank recently resulted in groundwater contamination in Moscow.

Boise Area Office. A large groundwater cleanup project is underway in Boise where two million gallons of petroleum were released from an aboveground storage facility. Two smaller remedial efforts have been conducted for leaking tanks in Fruitland and Weiser. Additional leaking tanks have recently been identified in Boise, Caldwell, Nampa, and Emmett. Investigations of groundwater contamination are underway at several military facilities. Of concern are petroleum storage and industrial solvents. Localized

groundwater contamination from solvents has been found at two industrial properties in Boise and pentachlorophenol was detected in groundwater at a nearby pole treating facility. Other groundwater concerns include food processing facilities where process wastewater is applied to the land as a means of disposal.

Twin Falls Area Office. Petroleum is again a groundwater contaminant in this area. Petroleum releases from underground tanks, aboveground bulk storage facilities, and a buried pipeline have resulted in localized contamination in several areas. Land applied wastewater is another source of contaminants such as iron, manganese, nitrate, and total dissolved solids. In addition, a leaking geothermal pipeline in Ketchum has contaminated nearby public and private water supplies with fluoride.

Pocatello Area Office. Petroleum contamination of groundwater has been found in Preston, American Falls, and Rockland. Leaking underground and aboveground storage is the main source. Land application of food processing wastewater has caused localized areas where high levels of iron, manganese, and total organic carbon have been found in the groundwater. In Idaho Falls, creosote derivatives were found in the groundwater under a pole treating facility. In American Falls, a shallow drain well which had been used for disposal of solutions containing agricultural chemicals was closed. Groundwater in the vicinity contained low levels of some of these chemicals. Groundwater at the Idaho National Engineering Laboratory has been contaminated with radioactive substances and synthetic organic compounds. An extensive monitoring and investigation program is underway. Arsenic has been found in the groundwater near a fertilizer manufacturing plant in Pocatello. Lastly, petroleum products, solvents and heavy metals have been detected in the groundwater at a railcar maintenance facility in Pocatello.

Nonpoint Sources

Many potential contaminant sources of groundwater contamination are nonpoint sources. These land uses are numerous, dispersed and usually are individually insignificant in generating groundwater contaminants. It is the cumulative impact of these land uses when located in high density situations that results in groundwater contamination.

Point sources of groundwater impacts, such as a leaking underground tank, generally result in localized contamination. Typically, the area of impact from a point source is on the order of acres or tenths of a square mile. Exceptions to this rule have been noted in Idaho, but generally point sources do produce localized impacts. In contrast, nonpoint sources can impact larger areas. Land uses spread over large areas can potentially degrade groundwater quality over many square miles.

Groundwater contamination results when the ability of the soil to absorb and immobilize or break down contaminants is exceeded. Under such conditions, contaminants can leach downward and may eventually reach the water table. Areas where groundwater is shallow or where soils are thin or very permeable are particularly vulnerable. Also where considerable water is applied to the land surface in the form of precipitation or irrigation water, the potential is greater because additional water is available to leach contaminants below the root zone.

Groundwater contaminants are not subject to some of the natural remedial processes that are present in surface water. Microbial and chemical degradation are much slower or non-existent below the root zone because dissolved oxygen concentration, temperature, and microbial activity are lower. Losses of contaminants due to volatilization are also minimal. Lastly, groundwater flow tends to be laminar (sheet-like). Therefore, unlike

surface water, dilution due to mixing and dispersion does not occur readily. Once contaminants move below the root zone, natural treatment processes are minimal.

The geologic nature of several of Idaho's aquifers contributes to their potential for contamination (see Figure 2 on page 13). Water moves rapidly through some basalt and alluvial aquifers resulting in contaminant dispersal without treatment. Of particular concern are the Rathdrum Prairie and eastern Snake Plain aquifers.

Idaho is fortunate to have several natural factors that help reduce the potential for groundwater impacts. The first is the localized presence of impermeable soil layers that impede groundwater leaching. These layers, which are often composed of caliche (calcium carbonate hardpan), act as protective barriers. Secondly, in many locations such as in the Snake Plain, the quantity of water moving through the saturated zone is great. Contaminants that are introduced may be diluted if given sufficient time and distance before being withdrawn in a well. Lastly, the pH of soils in some areas, including most of the Snake Plain, is alkaline. This tends to promote the degradation of some agricultural chemicals that are applied in Idaho.

As discussed earlier, groundwater monitoring in Idaho is limited. Most of the monitoring that has been done has been conducted in relation to known or suspected point sources such as spills or facilities with processes that can impact groundwater (example, land application of wastewater). Monitoring for nonpoint sources is much less frequent because of the expense involved in the widespread network that is needed and the fact that we are in the earliest stages of understanding the role of nonpoint source impacts on groundwater. Even when sampling is done, it is frequently impossible to determine the source of the contaminant because of the dispersed nature of nonpoint sources. The relative importance of nonpoint sources versus point sources of groundwater contamination is not known in Idaho, primarily because nonpoint source impacts are poorly understood.

For the purposes of this report, three potential nonpoint sources will be discussed. These are septic systems, field application of agricultural chemicals, and urban runoff. These three were chosen because the extent of these activities or land uses in Idaho is significant. Although there are undoubtedly other potential nonpoint sources in the state, the limited monitoring data make it difficult to attempt to evaluate the extent of impact of other sources. In actuality, the available monitoring data are of limited value in distinguishing between the three sources that were selected.

The groundwater quality parameter for which the greatest volume of data is available in Idaho is nitrate - nitrogen ($\text{NO}_3 - \text{N}$). Because nitrate is rarely derived in significant concentrations from natural sources and is a major contaminant derived from nonpoint sources, it was selected as a general indicator of groundwater quality impacts in this report. Also because nitrate is an anion, it is chemically mobile and moves readily with soil water. The following section summarizes the data on nitrate as a general introduction prior to the sections on each nonpoint source category.

Nitrate as an Indicator

Nitrate in drinking water can be a significant health concern. Concentrations above 10 mg/L are suspected of causing adverse health effects, especially in infants. Consequently, 10 mg/L has been established as the maximum concentration for use as a drinking water supply (IDHW, 1985a).

n most cases, the natural background concentration of nitrate in groundwater in Idaho is less than 1 mg/L (Jones and Lustig, 1977; Seitz and Norvitch, 1979; Yee and Souza, 1984). Parlman et al. (1980) concluded that the background concentration of nitrate in the Rathdrum Prairie aquifer was probably less than 0.5 mg/L. Sampling of 108 wells in the east-central Idaho valleys revealed that 75% had less than 1 mg/L nitrate (Parlman, 1982) and even in the heavily used Snake Plain, 75% of the several hundred wells that were sampled in two recent studies contained less than 2 mg/L nitrate (Parlman, 1983; Low, 1985). From these studies it is clear that the use of most of the groundwater in Idaho for drinking water is not impaired by excessive nitrate.

Although the state's groundwater generally is of good quality, nitrate impacts can be discerned in Idaho. Nitrate data from the USGS WATSTORE database for 1,384 wells and springs around the state are summarized in Table 15. The data were analyzed in two time periods, 1975 through 1981 and 1982 through 1987. Data also compare concentration versus well depth. Significant differences are not apparent between the earlier and later sampling periods, nor are differences apparent between the shallow and deep wells. Several important conclusions can be drawn. First, about 50% of these wells show nitrate concentrations above natural background levels. Secondly, either trends are not occurring over time or the data are insufficient to identify trends. Lastly, many deep wells (greater than 100 feet) are being impacted as well as shallow wells. Regional aquifers as well as perched systems are at risk in many locations. This is due to permeable aquifer media as well as vertical interconnection between aquifers.

**Table 15. Nitrate Concentration in Wells in Idaho
(NO₃-N in mg/L).**

Sampling Period - 1975 - 1981

	<u>Well Depth (feet)</u>			All Wells
	Less Than 31	31 - 100	Greater Than 100	
Number	29	210	527	919
Median	1.8	0.80	0.82	0.81
Mean	2.7	1.9	1.8	1.8
Range	<0.1 - 19	<0.1 - 27	<0.1 - 29	<0.1 - 29

Sampling Period - 1982 - 1987

	<u>Well Depth (feet)</u>			All Wells
	Less Than 31	31 - 100	Greater Than 100	
Number	16	110	202	465
Median	0.62	1.5	1.2	1.3
Mean	3.2	4.1	2.5	3.4
Range	<0.1 - 18.5	<0.1 - 29.5	<0.1 - 11	<0.1 - 76

Source: WATSTORE, USGS

Yee and Souza (1984) analyzed nitrate data by aquifer. A summary of the data derived from their work is given in Table 16.

All areas identified by Yee and Souza have measured nitrate concentrations that significantly exceed background and most areas have some wells that exceed the drinking water standard. Groundwater in the Boise-Nampa area had the highest median nitrate value. Unpublished data from a sampling program conducted in 1977 by the Southwest District Health Department in this area revealed that 10% of the 180 wells sampled had nitrate concentrations in excess of 10 mg/L. Studies have been undertaken to investigate the source of this contamination and it has been shown that both septic tanks and fertilizer application on irrigated agricultural land are likely contributors in localized areas (Dion, 1972; Naylor et al., 1976; Lewis et al., 1978; U.S. Bureau of Reclamation, 1984). These sources will be discussed further in a later section of this report.

Table 16. Nitrate Concentration in Groundwater (mg/L)
(Modified from Yee and Souza, 1984).

	Aquifer Ref. in Figure 3.	Minimum	Maximum	Median	Mean	Standard Deviation	Number of Analyses
Panhandle Basin							
Glacial Deposits	3	0.1	25	0.1	0.7	2.7	84
Quaternary Alluvium	7	0.1	0.47	0.20	0.21	0.18	8
Columbia River Basalt	9,10	0	9.4	-	0.32	-	68
Boise-Nampa	1	0.4	10.5	2.6	-	-	31
Eastern Snake Plain							
Snake River Basalt	2	0.1	13	1.1	1.3	1.1	214
Quaternary Sediments	2	0.02	19	0.8	2.3	4.1	29

Another area of concern identified by Yee and Souza (1984) was the eastern Snake Plain aquifer. While of generally good quality, regions of elevated nitrate have been identified. Dyer and Young (1977) sampled 194 irrigation wells and 29 springs in 1970 and found elevated nitrate levels near Rupert, Mud Lake, Ashton, and around American Falls Reservoir. Ten years later, Low (1985) evaluated 837 analyses from the Snake Plain aquifer and found a similar distribution. Changes in concentration over time were not apparent but the data show that impacts are detectable and persistent. A third study in Minidoka County supported this conclusion (Glover and Zimmer, 1980). Data from Low's study are summarized below in Figure 43. The data show again that about 50% of the wells exhibited elevated nitrate concentrations but only a few percent exceed the drinking water standard.

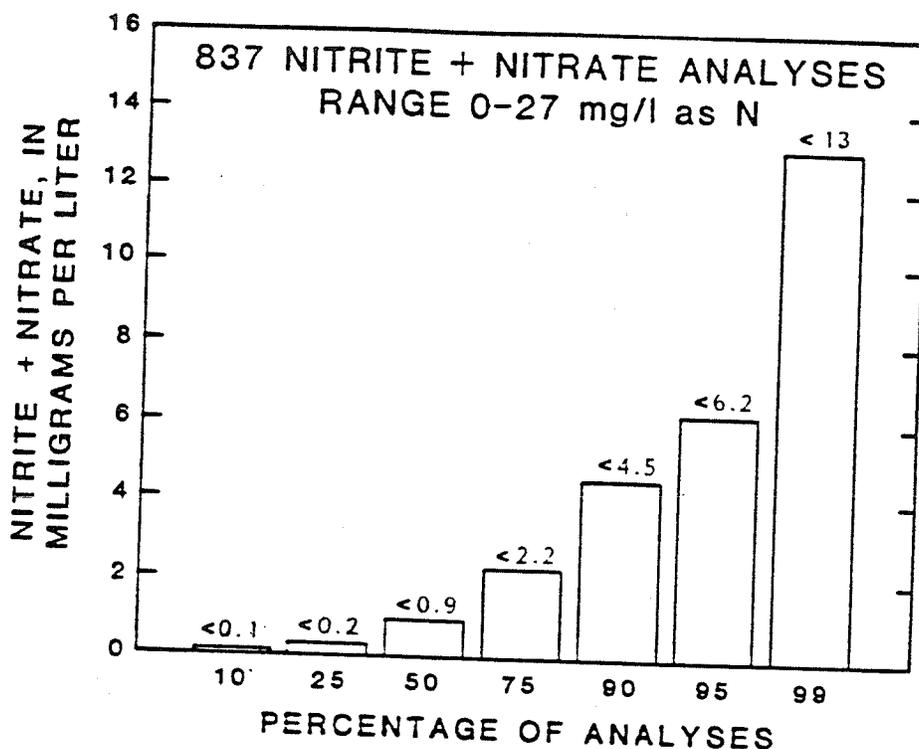


Figure 43. Nitrate Data for the Eastern and Western Snake Plain Aquifer (Refer to aquifers 1, 2, and 8 in Figure 3). Modified from Low, 1985.

The last major area of concern identified by Yee and Souza was the Rathdrum Prairie aquifer. Nitrate contamination has long been a major concern in this area because of the aquifer's importance as a sole source of drinking water. Most groundwater remains below a few mg/L nitrate but some wells are unsuitable for drinking water (Jones and Lustig, 1977; Parlman et al., 1980; Jehn, in press).

A limited monitoring program has been conducted for over 10 years in the Rathdrum Prairie aquifer and the sources of nitrate are comparatively well understood. Nitrate levels have been observed to increase as groundwater passes horizontally through the aquifer. The nitrate increase is significantly greater in urban and suburban areas than in agricultural areas (Jones and Lustig, 1977). As will be discussed later, septic systems are believed to be the major source of nitrate.

Most of the previously mentioned studies and data summaries represent regional evaluations. These are of limited use in defining localized conditions. To address the need for better resolution in our understanding of nitrate impacts, several local surveys have been conducted. The study areas were selected because either: 1) groundwater and water supply wells are shallow, 2) soil and aquifer media are permeable and/or, 3) irrigation practices provide significant local recharge. Thus these study areas were selected because the groundwater was particularly vulnerable to impact. The data are summarized in Table 17. The median nitrate concentrations detected in these wells are significantly higher than in the statewide and regional studies. Many wells showed significantly elevated nitrate levels (greater than 5 mg/L) and private wells that exceeded the drinking water standard were not uncommon.

**Table 17. Nitrate Concentration in Wells In Local Surveys
(NO₃ - N in mg/L).**

<u>Study Done By</u>	<u>Year</u>	<u>Location</u>	<u>Number of Wells Sampled</u>	<u>Results</u>	<u>Reference</u>
IDHW	1986	Fruitland	16	60% wells exceeded 5 mg/L NO ₃ (Maximum = 12 mg/L)	IDHW, unpublished data
USGS/IDHW	1987	Burley Irrigation District	118	67% wells exceeded 5 mg/L NO ₃ (Maximum = 30 mg/L)	Young et al., 1987a
USGS/IDHW	1987	Minidoka Irrigation District	67	31% wells exceeded 5 mg/L NO ₃ (Maximum = 76 mg/L)	Young et al., 1987b
USGS/IDHW	1987	Murtaugh Lake area	45	27% wells exceeded 5 mg/L NO ₃ Maximum = 11 mg/L)	Parlman and Young, 1987

Most of the previously discussed studies did not identify the source of contamination. Consequently, it is rarely possible to evaluate the relative importance of the various potential contributors of nitrate to groundwater. The following sections describe what is known about nonpoint sources which potentially generate nitrate and other groundwater contaminants.

Septic Systems

Over 35% of the homes in Idaho utilize septic systems for domestic sewage disposal (Tomson, 1984). The actual number of such systems is not known but is estimated to be around 140,000 (assuming a population of 1,000,000 and 2.5 persons per dwelling) (IDHW and IDWR, 1985, pp. 86). In 1986, 3,230 permits for septic systems were issued, the majority being issued for new systems (DEQ, unpublished data). Most of the septic systems in Idaho are located over the Boise Valley, Snake Plain, and Rathdrum Prairie aquifers.

Septic systems utilize the natural characteristics of the soil to absorb and treat effluent from domestic sewage. In a properly functioning system, pathogens such as bacteria and viruses will be retained in the soil and die. Nutrients such as nitrate and chloride will also be retained and will not impact groundwater. However, if not sited and maintained properly, septic systems are known to cause serious groundwater contamination (Scalf and Dunlap, 1977; Canter and Knox, 1984). They were ranked as one of the greatest potential hazards to groundwater in the Northwest (EPA, 1980). The contaminants of greatest concern are nitrate, fecal coliform bacteria, and viruses.

Few special studies have been conducted to assess the impact of septic systems on groundwater in Idaho. Where investigations have identified impacts, the contamination

is generally associated with older systems, poorly planned subdivisions, or locations where septic system density exceeds the absorptive capacity of the soil.

One of the earlier studies to be conducted in the Treasure Valley involved the investigation of groundwater quality near five high density subdivisions which utilized septic systems (Mink et al., 1975). Nutrient and bacterial contamination was noted where soils were porous and the water table was shallower than five feet.

A later study in southwest Boise analyzed groundwater quality near two subdivisions while septic systems were in use to compare aquifer quality after central sewers had been constructed in the area (Glover, 1981; U.S. Bureau of Reclamation, 1984). The study found elevated concentrations of nitrate, sodium, and chloride in the vicinity of the subdivisions. A significant reduction of sodium and chloride was noted after the sewers were constructed. However, the improvement in groundwater quality was not as rapid or as extensive as had been expected. This was attributed to the fact that not all of the homes were connected to the central system during the study period. Also, residual contaminants were undoubtedly present in the unsaturated soil allowing for continued leaching even after the septic systems were abandoned.

The Rathdrum Prairie aquifer in northern Idaho has been the focus of much concern regarding contamination from septic systems. There are an estimated 14,233 septic systems over this aquifer alone discharging 3,558,000 gallons of effluent per day (Jehn, 1988). Local soil and aquifer materials are very permeable and highly susceptible to impact. Starting in 1975, 31 wells were monitored for 16 months. Nitrate concentrations significantly above background were reported in areas downgradient from three major cities utilizing septic systems (Jones and Lustig, 1977). This trend was not apparent in agricultural areas included in this study. The study concluded that 60% of the contaminant loading received by the aquifer was from septic systems and that these systems were not acceptable in porous soils over the aquifer. As a result, over \$16,000,000 has been spent to provide municipal treatment facilities for communities over the aquifer. The Panhandle District Health Department negotiates sewage management agreements with municipalities so that where used, septic systems are sited in low density (one system per 5 acres).

Zimmer (1983) reported that shallow groundwater near Cascade Reservoir was often contaminated with fecal coliform and fecal streptococci. The contamination was thought to be from home sites with drain fields in or near shallow groundwater. A 1986 study by Lappin and Clark on several small streams around Cascade Reservoir found as much as a 33 fold increase in fecal coliform from above developed areas to below. The soils in the study area are characterized by shallow clay layers and high spring water tables. The drainfields are routinely in saturated soils during spring snowmelt, contaminating the groundwater and consequently the streams receiving groundwater discharges. Payette Lake and its tributaries have shown similar adverse water quality impacts from on-site sewage disposal (Falter, 1984).

An investigation near Island Park found that 67% of the private wells and two community water supply wells serving the Aspen Ridge subdivision were contaminated with coliform bacteria from septic systems (Dixon, 1987). The subdivision soil consisted of approximately one foot of top soil over consolidated but highly fractured volcanic ash. The septic tank effluent moved through the fractured ash and reached the aquifer with little treatment or removal of contaminants.

In 1985, a dye trace study was conducted over the Snake Plain aquifer in Minidoka County (Laumann, 1985). Several domestic wells in the area contained nitrate

concentrations in excess of 10 mg/L. Some of these wells drew water from a shallow perched aquifer, others were supplied by the deeper regional aquifer. In this study, fluorescent dye was injected into local septic systems and within two weeks, the dye was found in the 10 wells in question. Apparently, there is minimal isolation of the perched aquifer from the regional system in this area.

In the majority of the studies cited above, actions have been taken to remedy the problems that were identified. A building moratorium was established in the area studied southwest of Boise where central sewers are not available. Central sewer has been extended to several shallow water table areas around Boise and Payette Lake, and is planned to be extended on the Aspen Ridge subdivision near Island Park. No new subdivisions with less than 5 acre lots are allowed over the Rathdrum Prairie aquifer unless a central sewer system is available or will be available within 5 years. In Minidoka County, all new subdivisions must connect to central sewers.

In the majority of these studies, nutrients and bacteria were the primary contaminants of concern. Monitoring is generally limited to these parameters. The growing national trend toward analyzing for virus contamination may shed new light on Idaho's problems associated with septic systems. Arizona has recently found that 20% of all rural wells are contaminated with viruses from septic systems and land disposal of municipal sewage (Gerba, 1988). Additional monitoring of existing systems for viruses as well as traditional parameters is needed.

Idaho's septic system regulations have been revised and substantially improved over the last 15 years. Guidelines have been established to allow innovative system design where site conditions are not suitable for standard septic systems. While some advances in system design are probable, it is likely that the majority of possible design improvements are already available. Therefore the greatest effort should now be directed toward better management of existing systems.

In the past, septic systems were often thought of as a temporary means of sewage disposal until a central sewer system became available. This is no longer the case, particularly in sparsely populated areas in Idaho. In some areas, septic systems will be the preferred long term method of sewage treatment. Systems must be managed effectively for sustained operation without groundwater impacts.

Agriculture

About 12% (6.5 million acres) of the state is used for agriculture (personal communication, Idaho Department of Agriculture). Sixty two percent of this area is irrigated. Forty percent of the eastern Snake Plain aquifer is cultivated, 92% of which is irrigated with surface and groundwater (IDHW and IDWR, 1985). In the Rathdrum Prairie, 26,000 acres or 20% of the aquifer's land surface is used for agriculture with 66% being irrigated (Jehn, 1988). As can be seen from Figure 3, much of Idaho's best agricultural land is underlain by the state's most vulnerable aquifers.

Agricultural chemicals consist of fertilizers and pesticides (including herbicides and insecticides). These two categories will be discussed separately below. Monitoring data for these chemicals in Idaho's groundwater are practically nonexistent. At this time it is impossible to evaluate whether agricultural practices are a significant source of groundwater contaminants.

However, data collected in other states provide reason for concern. At least 17 pesticides used in agricultural practices have been found in groundwater in 23 states

(Cohen et al., 1986; U.S. Environmental Protection Agency, 1986). In Iowa, 50% of public water supplies in alluvial aquifers tested positive for pesticide residues; in Kansas, 28% of 100 randomly selected private wells on farms violated the nitrate standard; in California, 54 pesticide residues were found in 2,500 wells in 24 counties and in Oregon, elevated nitrate and dacthal (an herbicide) levels were found near Ontario (NWWA, 1986). In Iowa, the frequency of detection of pesticide residues has steadily increased over the past ten years (NWWA, 1986). Numerous other studies have produced similar data in other states such as Florida, Maryland, Minnesota, New York, Washington, and Wisconsin. These data are derived solely from monitoring of nonpoint source agricultural activities such as field application of chemicals within accepted label rates. Contamination resulting from point sources such as spills, accidents, misuse, and mixing/loading sites is not included. These studies indicate that under certain conditions, field applied chemicals can and do impact groundwater.

Fertilizers

The major types and quantities of fertilizer materials applied in Idaho are listed in Table 18.

Table 18. Estimated Commercial Fertilizer Materials.

<u>Type</u>	<u>Tons/Year</u>
Nitrogen materials	406,000
Phosphate materials	40,000
Potash materials	12,000
Secondary and micronutrients	13,200

Clearly the greatest application is of nitrogen materials. Coupled with the great mobility of the nitrate anion, this category of fertilizer materials is of greatest concern with respect to groundwater quality. Nitrate can be rapidly leached below the root zone under certain conditions. Nitrate leaching rates are a function of irrigation and precipitation rate and timing, fertilizer application rate and timing, and crops grown (Robbins and Carter, 1980 and references therein). Studies in Idaho show that as much as 50% of the irrigation water that is applied can leach through the soil and be lost to subsurface drainage (Carter et al., 1971). Under these conditions, the nitrate concentration in the subsurface drainage water was 30 times the nitrate concentration in the surface applied water or the surface runoff (Carter et al., 1971). Other studies have shown that even with an irrigation rate only slightly higher than the consumptive use of the crops, nitrogen fertilizer can move rapidly downward through the soil profile at a rate of 0.5 feet/week in coarse soils (McDole, 1972). Still other studies in Idaho have documented similar losses of fertilizer nitrate to the groundwater (Robbins and Carter, 1980) and have observed that nitrate concentrations in groundwater drainage exceed concentrations in surface runoff (Naylor et al., 1976). Given all of these factors, the application of fertilizer and irrigation water in excess of crop needs is a potential source of nitrate contamination of groundwater in areas where these practices occur.

Several studies conducted on irrigated acreage in the Boise Valley point toward groundwater impacts from agricultural chemicals (Dion, 1972; Naylor et al., 1976; Lewis et al., 1978). Although the impacts are not severe, these studies document impacts that are undoubtedly occurring elsewhere in the state as well.

The movement of large quantities of water below the root zone of irrigated crop lands can have the effect of diluting the nitrate losses from the field (Lewis et al., 1977). Quarterly sampling of groundwater in the Burley Irrigation District in 1987 has shown that the highest nitrate concentrations in some wells are typically found when the water table is at its seasonally greatest depth (Young et al., 1987 and additional unpublished USGS data). This typically occurs in late winter. With the onset of the irrigation season, the water table rises and nitrate concentrations are diluted by a factor of 2 to 5. Therefore, in some locations, nitrate concentrations may be moderated by the large volumes of irrigation water that are applied. In areas where water application is moderate to slight, such as dry land farming areas, the highest concentrations would be expected in spring, coinciding with the seasonal application of fertilizer materials.

Pesticides

Pesticide application is regulated by the Idaho Department of Agriculture. However, no reliable data are available on which to base an estimate of the quantities of these products which are actually used. Increased concern with respect to groundwater stems from the fact that the pesticides used today are more water soluble and susceptible to leaching than their counterparts of the 1960s and 1970s.

In order to identify pesticides with the greatest potential for leaching, the chemical characteristics of commonly used pesticides were examined. When soil half life, water solubility, and absorptive behavior exceeded certain limits, the leaching potential was considered significant (Cohen et al., 1984). From this work, a list of 60 leachable pesticides was developed by the U.S. Environmental Protection Agency. Table 19 shows the number of leachable pesticides registered for use on the major crops grown in Idaho.

**Table 19. Number of Leachable Pesticides Registered for Use
On Major Crops Grown in Idaho.**

Alfalfa	9
Barley	6
Beans	6
Corn	9
Oats	3
Potatoes	11
Sugar beets	5
Wheat	8

Source: Idaho Department of Agriculture pesticide registration data.

Idaho has virtually no data to evaluate the potential for pesticide contamination of groundwater. The monitoring that has been done as required under the Safe Drinking Water Act is for endrin, lindane, methoxychlor, toxaphene, 2,4-D, and 2,4,5-TP. Only 2,4-D is commonly used today. It is also found on the leachable pesticide list.

Monitoring for the more commonly used, leachable pesticides is a growing priority for the state. The monitoring that has been done is summarized in Table 20. The leachable pesticides for which analyses were performed are listed in Table 21.

**Table 20. Groundwater Sampling of
Agricultural Chemicals.**

<u>Sampling Done By</u>	<u>Year</u>	<u>Location</u>	<u>Number of Wells Sampled</u>	<u>Parameters Analyzed</u>	<u>Results</u>	<u>Reference</u>
Union Carbide	1979	Bingham Co. Fremont Co.	3	Aldicarb	None detected	Unpublished data
EPA	1979	Ada Co. Bingham Co. Twin Falls Co. Minidoka Co.	19	Aldicarb	None detected	Unpublished data
IDHW-Brokopp	1981	Rupert	15	Aldicarb	None detected	Brokopp, 1981
IDHW	1986	Fruitland	16	Leachable pesticides	80% wells had detectable levels of Dacthal (0-10 ppb)	IDHW Unpublished data
USGS/IDHW	1987	Burley Irrigation District	19	Leachable pesticides	No pesticides detected at levels of public health concern	IDHW Unpublished data
USGS/IDHW	1987	Minidoka Irrigation District	19	Leachable Pesticides	No pesticides detected at levels of public health concern	IDHW Unpublished data
Rhone Poulenc (formerly Union Carbide)	1987	Eastern Snake Plain, Boise and vicinity	150	Aldicarb	Aldicarb detected in 1 well (2 ppb)	Unpublished data

Table 21. Leachable Pesticides Tested in Idaho Studies

<u>Herbicides</u>	<u>Insecticides</u>
Alachlor	Aldicarb
Atrazine	Diazinon
Cyanazine	Disulfoton
Cycloate	Methyl Parathion
Dalapon	
Dacthal	
Dicamba	
Dinoseb	
Hexazinon	
Metribuzin	
Picloram	
Simazine	
Treflan	
Triallate	
2,4D	

Based on the limited data available, no pesticides have been detected at levels of public health concern. In most wells, no pesticide residues are detected at all. In one limited study conducted near Fruitland, 80% of the wells sampled did contain detectable levels of the herbicide dacthal at levels well below the health advisory limit (500 ppb) (IDHW, unpublished data). Further study is needed to determine the extent and persistence of this contamination.

In summary, beyond identification of a few localized impacts, Idaho's database is inadequate to assess the magnitude of potential impacts of agricultural chemicals on groundwater quality. Further monitoring is needed in additional locations and for an expanded list of parameters. If significant impacts are detected, chemical and water application practices should be reviewed. Management practices that reflect groundwater vulnerability should be promoted to prevent adverse impacts that may threaten the use of localized groundwater as a drinking water supply.

An additional challenge results from the need for management practices that protect both surface water and groundwater. In limiting runoff from agricultural land, careful consideration must be given to the potential for excess loading that may result in leaching of contaminants to groundwater. Best management practices are needed that carefully balance the site-specific ability of surface water and groundwater to assimilate agricultural chemicals leaving the root zone. Of particular concern are conservation tillage practices that minimize sediment and water runoff from agricultural acreage. Frequently additional herbicides are needed for these practices. Vertical soil structures are promoted and leaching may be enhanced (Logan et al., 1987). Additional research is needed to define the benefits of these practices with respect to both surface and groundwater.

Urban Runoff

Urban runoff is generated from street and parking drainage. It is the water derived from snow, rain, ice, street cleaning, urban irrigation, and other water sources associated with ground or paved surfaces in urban areas. Runoff waters may contain significant quantities of garbage, eroded soil, salt and roadway de-icers, animal fecal material, fertilizers and pesticides, petroleum compounds, industrial solvents, and heavy metals (Campbell, 1985). Although the concentration of these contaminants is generally low, urban runoff can pose a significant threat to groundwater in some areas. Given the dispersed nature of runoff infiltration and the large number of drainage structures in use, urban runoff is clearly a nonpoint source of significance with respect to groundwater.

The magnitude of this potential source of contamination is not well understood in Idaho. However, in the Washington portion of the Spokane Valley (Rathdrum Prairie aquifer) 30% of the total dissolved solids delivered to the aquifer and 60% of the toxic metal loading to the aquifer are estimated to be derived from urban runoff (Miller, 1987). Salts from road de-icers have been found to be impacting groundwater in other states as well. As would be expected, runoff derived from commercial and industrial areas contributes more contaminants than runoff from residential areas (Miller, 1987).

Urban runoff may reach groundwater through several different pathways. First, runoff water may simply infiltrate through the soil and eventually reach the saturated zone. This is a major concern where soils are thin (example, some areas in the Snake Plain) or extremely permeable, such as the Rathdrum Prairie. Secondly, manmade drainage structures can convey runoff into the subsurface. Conveyances that are wider than they are deep are not regulated by any agency. A drainage structure of this type is the french drain, a shallow gravel filled trench designed to promote infiltration. This is probably the most common approach used for storm drainage and the number, location or impact of these drains are not known (Campbell, 1985).

A drainage structure in which the horizontal dimension is less than the vertical dimension is an injection well and is regulated by the Idaho Department of Water Resources Underground Injection Control Program. Drainage wells are divided into two classes: those greater than 18 feet are deep injection wells, those less than 18 feet are shallow injection wells. Most injection wells used for urban runoff are shallow injection wells.

Federal law classifies storm drainage wells as Class V injection wells. In a recent evaluation of Class V wells in Idaho, storm drainage wells were ranked as having the highest potential for groundwater contamination (Graham et al., 1987). The assessment inventoried 1,165 stormwater drainage wells of which 1,009 were shallow wells. Eighty-nine percent of these wells are located over Idaho's three major aquifers: the Rathdrum Prairie (394 wells), the Boise Valley (299 wells) and the Snake Plain aquifer (360 wells). All of the 156 deep wells were located in the Snake Plain and inject to depths of 50 to 100 feet.

Stormwater runoff quality has been analyzed in Idaho Falls, Pocatello, Boise, Shoshone, Wendell, and Hagerman (references cited in Graham et al., 1987). Elevated concentrations of mercury, lead, chromium, chloride, sodium, copper, iron, zinc, dissolved solids, coliform bacteria, and oil and grease in water entering the drains are cause for concern. However, inadequate monitoring data exist to evaluate whether groundwater impacts are occurring. Contaminants may leach to shallow unconfined aquifers or soil filtration and adsorption of contaminants may mitigate impacts. Seitz et

al. (1977) investigated the effects of injection wells on groundwater quality in the Magic Valley. Although no regional aquifer impacts were documented, they concluded that the potential for impacts did exist. Other studies have documented the rapid movement of injected wastewater through the Snake Plain aquifer (Abegglen et al., 1970; Graham et al., 1983) supporting the conclusion that injection of urban runoff could cause localized degradation of groundwater quality (Graham et al., 1987). Additional monitoring is needed in Idaho to determine the extent to which this may be occurring.

Improved management practices for urban runoff have been implemented at various locations around the nation. Grass-lined swales or ditches have been promoted in Spokane since 1979 to provide treatment of the runoff prior to infiltration (Spokane County 208 Program, 1979). Other alternatives include the use of sewers to convey the runoff to municipal treatment facilities and the construction of catch basins or sand filters to provide some treatment.

Based on findings from the Spokane aquifer, urban runoff is a major potential contaminant source in the Rathdrum Prairie aquifer (Miller, 1984). Efforts are beginning in cooperation with the Panhandle District Health Department and the Idaho Department of Water Resources to identify and implement economically feasible methods to prevent impacts from urban runoff to the Rathdrum Prairie aquifer. Similar work is needed in other urban areas throughout the state, particularly where groundwater and water supply wells are shallow.

Groundwater Conclusions

The quality of most groundwater in Idaho is good. Most groundwater is suitable for drinking, agricultural, and industrial uses. Naturally occurring contaminants such as dissolved solids, fluoride, and hardness restrict water use in some areas. In addition, contamination from both point and nonpoint sources has occurred. Where contamination has been found, it is generally localized, ranging from a few acres up to square miles. In instances where water supply wells have been impacted, the contamination is generally limited to a small number of wells. Nonpoint sources have resulted in more widespread, low level impacts.

The most common point sources of groundwater contamination are above and below ground petroleum storage, leaks and accidental spills of industrial chemicals, and land application of wastewater. Regulatory programs to address each of these sources are being developed by the appropriate agencies with input and assistance from advisory committees of industry and citizen representatives.

Nonpoint sources are very poorly understood in Idaho, principally because monitoring data are inadequate or nonexistent. The relative importance of nonpoint sources versus point source impacts is not known.

The groundwater quality parameter for which the greatest volume of data is available is nitrate-nitrogen ($\text{NO}_3\text{-N}$). Because nitrate is rarely derived in significant concentration from natural sources, it is a useful indicator of human impacts on aquifer quality. Nitrate data from 1,384 groundwater sources around the state ranging over twelve years were statistically analyzed. Fifty percent of the wells showed nitrate concentrations over natural background levels (1 ppm $\text{NO}_3\text{-N}$). Most were below the health limit of 10 ppm. However, private wells which exceed the health limit were identified in some areas, particularly in the Snake Plain. Trends over time could not be identified, possibly because data were insufficient. Lastly, many deep wells (greater

than 100 feet) were impacted as well as shallow wells. Regional aquifers as well as perched systems are vulnerable in many locations. Localized problems are evident in the Boise Valley, Snake Plain, and Rathdrum Prairie aquifers.

Because monitoring data are limited, individual nonpoint sources were difficult to identify and assess. Of the large variety of potential contaminant sources, agriculture, septic systems, and urban runoff were selected for this report.

Septic systems can impact groundwater when the water table is shallow, soil conditions are inappropriate for the system design, or system density is excessive. Idaho's regulations allow for innovative system design where site conditions are not suitable for standard systems. In some areas, central sewer systems are the preferred alternative. But for the large sparsely populated areas in the state, improved siting management of systems is the only feasible approach for sustained operation without ground and water impacts.

Virtually no monitoring has been done for agricultural chemicals in groundwater in Idaho. Data from other states show that field applied chemicals can reach groundwater in significant quantities under certain combinations of factors such as soil permeability, chemical mobility, and water application practices. Studies in Idaho have documented that fertilizer materials leach below the root zone in localized areas throughout the state. The very limited groundwater sampling done for pesticides to date has not revealed levels which pose a public health threat. Clearly, monitoring efforts need to be expanded before this important issue can be adequately addressed.

Impacts on groundwater from infiltration or injection of urban runoff water are poorly investigated in Idaho. However, in the Spokane Valley in Washington, 30% of the total dissolved solids delivered to the aquifer and 60% of the toxic metal loading to the aquifer are estimated to be derived from urban runoff. Improved storm drainage practices are particularly important where population centers are situated over vulnerable aquifers such as the Rathdrum Prairie and the Boise Valley.

WATER POLLUTION CONTROL PROGRAMS

Idaho's Water Pollution Control Program consists of surface water and groundwater programs with many elements. The majority of programs fall under the authority of the federal Clean Water Act and the Idaho Environmental Protection and Health Act. The Water Supply Program is authorized under the federal State Drinking Water Act. A discussion of this program is included in this report as it forms a major portion of the overall state water quality program.

SURFACE WATER QUALITY MANAGEMENT

Nonpoint Source Control

Agriculture

Agricultural related water quality problems were first addressed by the Division of Environmental Quality (DEQ) in 1979. Idaho developed and adopted a statewide Agricultural Pollution Abatement Plan with funds provided under Section 208 of the 1972 federal Water Pollution Control Act. The plan outlines a voluntary program to reduce nonpoint sources of water pollution from the state's agricultural lands. Implementation of the Agricultural Plan was initiated in 1980 through action by the state legislature which modified the Idaho Code to allow use of the state's Water Pollution Control Account for agricultural grants.

The goal of Idaho's Agricultural Water Quality Program is to reduce the water quality impacts that can result from agricultural and related activities. This is a sizable task considering the large acreage that is under production or is used for grazing.

Idaho has 3.5 million acres of irrigated cropland and 2.8 million acres of non-irrigated cropland, according to the 1982 National Resources Inventory. Erosion rates are among the highest in the nation on the state's non-irrigated cropland, where one storm can cause 150 tons of soil loss per acre. Most of Idaho's irrigated land lies along the Snake River or its tributaries. Inefficient water management on finely tilled soil causes serious erosion on irrigated row crops. Sediment, nutrients, and bacteria are the major pollutants carried to Idaho streams, rivers, lakes, and reservoirs in irrigation wastewater and runoff from non-irrigated cropland.

Approximately 8 million acres of private and state land are used for livestock grazing in Idaho. Degradation of riparian zones and stream channels are significant impacts from grazing.

In accordance with Idaho's State Agricultural Water Quality Program, the DEQ makes grants to local soil conservation districts (SCDs) to conduct voluntary pollution control projects on stream segments impacted by agricultural runoff. Districts receiving water quality grants agree to contract with farmers for installation and maintenance of BMPs. The grants provide cost-sharing to participating farmers of up to 75% of the average cost of applying Best Management Practices (BMPs). Grant funds are also used for project administration, educational activities, and for a part of the cost of providing technical assistance to farmers in planning and applying BMPs.

In 1977 each SCD Board of Supervisors prepared a list of BMPs based on the Soil Conservation Service Field Office Technical Guide. SCDs then obtained public review and input of this list of BMPs through meetings, workshops, questionnaires, and interviews. These processes provided the general public and the technical community the opportunity to review and evaluate BMPs for their effectiveness, economic feasibility, and social acceptance. A similar process is used by SCD boards to evaluate and modify or develop new BMPs as needed to address water quality problems in the district.

Program Accomplishments

In the seven years the program has been in place, \$12,858,104 from Idaho's Water Pollution Control Account was obligated to SCDs for agricultural water quality implementation (cost-share) projects (Table 22). A total of 79,906 acres is under contract for treatment (Table 23).

Table 22. Agricultural Implementation Grant Allocations, January, 1988.

Year Funded	Stream Segment	Conservation District	Grant Amount	Local Match	FY Totals
FY82	Cedar Draw	Balanced Rock	\$ 1,321,544	\$ 291,002	
FY82	Mission/Sheep Cr.	Benewah	\$ 676,435	\$ 150,519	
FY82	Arkansas Basin	Portneuf	\$ 790,157	\$ 76,948	\$ 2,788,136
FY83	Badger Cr.	East Side	\$ 514,807	\$ 112,219	
FY83	Conway Gulch	Canyon	\$ 878,251	\$ 395,195	
FY83	S.F. Palouse R.	Latah	\$ 637,903	\$ 115,011	
FY83	Wide Hollow	Oneida	\$ 715,252	\$ 20,953	\$ 2,746,213
FY84	U. Hangman Cr.	Benewah	\$ 648,105	\$ 48,140	
FY84	Meadow Cr.	East Side	\$ 670,426	\$ 13,108	\$ 1,318,531
FY85	Lone Pine	Portneuf	\$ 816,021	\$ 86,998	
FY85	Dairy Cr.	Oneida	\$ 949,305	\$ 38,748	\$ 1,765,326
FY86	Tex Cr.	East Side	\$ 844,339	\$ 25,548	
FY86	N.E. Worley	Kootenai-Shoshone	\$ 399,468	\$ 8,940	\$ 1,243,807
FY87	Bancroft	Caribou	\$1,019,129	\$ 244,818	
FY87	Pine Creek	Nez Perce	\$ 850,089	\$ 7,882	
FY87	Vinyard Creek	North Side	\$ 681,463	\$ 24,484	
FY87	Tensed/Lolo	Benewah	\$ 445,410	\$ 11,726	
		TOTALS	\$12,858,104	\$1,572,239	\$12,858,104

In FY 1985, regulations governing the State Agricultural Water Quality Program were modified to allow DEQ to make grants to districts for planning as well as implementation projects. Until this time, implementation grants were restricted mainly to projects planned in the late 1970s and early 1980s using federal 208 Water Quality Management Program funds.

Termination of funding of this program resulted in a decline in total annual grant amounts for implementation. Projects could not be implemented since no projects were being planned, hence the need to make the planning aspect of agricultural pollution abatement eligible for funding.

Since the program regulations were modified in 1985, 15 planning grants totaling \$549,623 have been made to conservation districts, and fiscal year obligations to the agricultural program are expected to increase. Grant amounts for planning and implementation totaling \$4 - \$5 million are anticipated for fiscal year 1988.

Table 23. Agricultural Program Acreage Under Treatment, January, 1988.

Year Funded	Stream Segment	Conservation District	Acres Under Contract	Percent Completion	Total Acreage
FY82	Cedar Draw	Balanced Rock	6,565	93	15,665
FY82	Mission/Sheep Cr.	Benewah	4,865	100	17,500
FY82	Arkansas Basin	Portneuf	4,085	100	6,500
FY83	Badger Cr.	East Side	5,579	100	10,452
FY83	Conway Gulch	Canyon	9,789	100	18,220
FY83	S.F. Palouse R.	Latah	11,105	100	25,160
FY83	Wide Hollow	Oneida	6,360	100	16,400
FY84	U. Hangman Cr.	Benewah	4,992	100	35,840
FY84	Meadow Cr.	East Side	2,654	35	27,740
FY85	Lone Pine	Portneuf	5,176	100	22,484
FY85	Dairy Cr.	Oneida	2,567	40	27,807
FY86	Tex Cr.	East Side	1,821	19	51,100
FY86	N.E. Worley	Kootenai-Shoshone	1,742	65	5,100
FY87	Bancroft	Caribou	5,543	70	70,691
FY87	Pine Creek	Nez Perce	739	7	16,850
FY87	Vinyard Creek	North Side	3,475	68	9,890
Fy87	Tensed/Lolo	Benewah	<u>2,849</u>	79	22,000
		TOTALS	79,906		

Planning projects last from one to two years. During this time, districts identify critical erosion areas and other pollution sources; select BMPs to correct the problems; figure treatment costs; and conduct intensive information and education programs for farmers and the general public in the project areas. Planning activities increase understanding and awareness of water quality impacts and promote the necessary support for the implementation phase of a project when appropriate.

The Agricultural Water Quality Program is demonstrating that Idaho farmers will voluntarily install and maintain BMPs to improve water quality when they receive adequate information, technical assistance, and financial help. By January 1988, districts had paid to participating farmers \$4,526,765 in cost-share funds for BMPs installed. Although the program allows for cost-share of up to 75%, experience has shown the farmers' cost approaches 50% by the end of the contract period.

Future Program Direction

Idaho's Agricultural Water Quality Program is facing several challenges in the next few years. The demand for agricultural water quality projects far outstrips the available resources. The most serious resource limitations involve technical assistance for farm conservation planning and water quality monitoring.

The amount paid for technical assistance to farmers in an implementation project is limited to 15 percent of the grant's share of the BMP costs. Planning projects provide no funds for technical assistance. The USDA Soil Conservation Service (SCS) has been providing technical assistance to farmers in implementation projects and usually assists districts in compiling resource information during planning projects. The SCS has been absorbing additional costs to continue providing these services. Recent SCS technical assistance demands under the Food Security Act of 1985 and other federal priorities beyond the scope of water quality have severely reduced available technical assistance for the Idaho Agricultural Water Quality Program.

The 1987 Idaho Legislature authorized the DEQ to enter into agreements with the Soil Conservation Commission (SCC) to provide technical assistance to SCDs for implementing water quality projects. As a means of augmenting SCS technical assistance, three Water Quality Resource Conservationists have been employed by the SCC and have been assigned to SCDs who have signed implementation grant agreements with DEQ.

DEQ conducts water quality studies associated with planning projects to evaluate the suspected impacts of agricultural runoff on receiving waterways. Study results are needed to determine which potential projects should be funded for implementation, and to inform local citizens about the causes and extent of water pollution problems. Water quality studies are considered one of DEQs responsibilities in administering the Water Pollution Control Account. Administrative costs are restricted by the Idaho Code to six percent of the account's annual income. This limits monitoring capabilities and consequently, the number of planning projects that can be funded. In 1987, the legislature denied a requested increase in staffing support.

Solutions to technical assistance and monitoring resource limitations are essential to the continued success of the Agricultural Water Quality Program and therefore a high priority for the future. An Agricultural Water Quality Committee has recently been appointed by the Idaho Association of Soil Conservation Districts to address these issues. Solving these limitations will provide the technical and monitoring support for planning, implementation, and post-implementation follow-up needed for a fully effective program. Total obligation of available funds to eligible projects will be possible, resulting in greater water quality benefits.

Rock Creek Rural Clean Water Program

Rock Creek in Twin Falls County, Idaho, has long been recognized as one of the most severely degraded streams in the state. With the removal of point sources, discharges, dramatic improvements in aesthetics, bacterial contamination, dissolved oxygen, and nutrient loading were observed in Rock Creek. However, nonpoint sources within the Rock Creek drainage continue to cause severe pollution problems. The major nonpoint source pollutants are sediment and associated materials contributed by irrigation return flows. During the irrigation season (April-October), the confluence of Rock Creek with the Snake River could be easily traced as a brown muddy streak. The Snake River and Twin Falls soil conservation districts were given a 208 grant to develop a detailed water pollution abatement plan for Rock Creek. Rock Creek was selected in 1980 as one of 13 original Rural Clean Water Program (RCWP) projects in the nation and as one of five chosen for comprehensive monitoring and evaluation.

Cost sharing is provided to farmers under the RCWP for installing best management practices (BMPs).

Rock Creek is located in the south central part of Idaho in Cassia and Twin Falls counties. The creek flows northwesterly approximately 67 kilometers, through Twin Falls County to the Snake River north of the City of Twin Falls. The watershed covers a total of 33,455 acres, of which 28,751 acres are irrigated crop production. Soils in the watershed are thin and easily eroded. The climate of the area is semi-arid with moderately cold winters and hot summers. The average discharge for Rock Creek at Poleline Road (near the mouth) is 213 cubic feet per second (cfs).

The Rock Creek watershed contains approximately 350 farm units. The basic crops grown are dry beans, dry peas, sugar beets, corn, small grains, and alfalfa. All crops are irrigated because of the low annual precipitation. Irrigation water is diverted from the Snake River and is delivered to the farms through a network of canals and laterals. Presently water is increased in Rock Creek beginning each year in March for hydroelectric energy production.

Water quality monitoring for the Rock Creek Rural Clean Water Program was initiated by DEQ in 1981 and is in its eighth year. The objectives of the water quality monitoring program are to determine the water quality of the irrigation drains in the sub-basins under study, as well as in the receiving stream, Rock Creek; and to quantify changes in water quality related to land management activities in the agricultural drains and in Rock Creek. To monitor the water quality, weekly sampling is done through the irrigation season on the sub-basin drains for suspended sediment, nutrients, and bacteria. Rock Creek is sampled for sediment, nutrients, bacteria, metals, minerals, pesticides, stream bank erosion, cobble embeddedness, stream bottom composition, macroinvertebrate populations, and fish populations to quantify the off-site impacts of the changes in irrigation drain water quality.

The results to date suggest that BMPs implemented under the RCWP in the project area have improved water quality in Rock Creek. The results show that BMPs have significantly reduced sediment and other pollutants to the agricultural drains studied. The sub-basins with the greatest percentage of best management practices implemented also show the greatest reductions in suspended sediment and other agricultural pollutants.

Suspended sediment has shown a significant decrease in five of the six sub-basins studied since the beginning of the project. Suspended sediment loadings in Rock Creek itself have been erratic and were seriously impacted by the 100-year flood event of spring 1984. Even so, sediment reductions in Rock Creek are becoming evident. The 1982 suspended sediment contribution of Rock Creek to the Snake River was approximately 65,986 tons compared with 22,448 for 1986, representing a two-thirds reduction since the beginning of the project. Some severe streambank erosion exists on the upper reaches of Rock Creek and are masking some of the effects of the sediment reductions in the drains. Forty-eight percent of the stream reaches in the project have substantial streambank erosion problems. These unstable banks contributed an estimated 20,668 tons of fine sediment and 54,716 tons of total sediment to Rock Creek during 1986. Analysis of substrate in Rock Creek reveals that all sample stations are impacted by fine sediments. The upper stations are more impacted than previously documented. Cobble embeddedness ranged from 35-64 percent in the project area with the most impacted sites found in the upper areas of unstable streambanks.

Three of the sub-basins show significant reductions in organic (total Kjeldahl) nitrogen, but nitrate-nitrogen has not been reduced by the project. Two stations show significant decreases for total phosphorus while only one station showed reduced dissolved ortho-phosphate and fecal coliform bacteria through 1984. Fourteen of 16 sub-basin stations did show an improvement

in fecal coliform density for the period 1981-1986. The two drains that did not improve have livestock operations located near them.

Pesticides are present in low concentrations in the water column but are higher in sediment and fish tissue. DDT and its analogs, PCBs, dieldrin, nonachlor, and pentachlorophenol, are the most common organic chemicals encountered. The levels appear to be below health and fisheries significance.

DEQ research has revealed that benthic macroinvertebrates show greatest diversity at upstream (higher quality) Rock Creek stations and lowest diversity at the middle and lower (lower quality) stream stations. In addition, a higher number of "clean water" organisms are found at the upstream stations and a greater number of "pollution tolerant" organisms are found at the lower stations.

Fish populations in Rock Creek have increased since the beginning of the project. Game fish (trout) populations have increased significantly at most Rock Creek sample stations since 1981. Wild trout populations have increased at five of the six Rock Creek stations since the beginning of the project. Trout size (biomass) increased at four of those five stations. The economic values of these trout data range from an increase from \$42.56 to \$124.05 at Station S-1 to \$42.56 to \$401.54 at Station S-5.

Quality assurance is an important part of both the field research and the laboratory analyses. Quality control check samples for suspended sediment and nutrients demonstrated high precision and accuracy for spiked samples.

Mining

Active and abandoned mines of varied types and sizes are scattered throughout Idaho. Water quality impacts have been identified from active and abandoned mine sites in virtually all of Idaho's hydrologic basins. Dredge and placer mining and cyanide leaching operations occur in the Clearwater, Southwest, and Salmon River Basins. The primary pollutants generated from these activities are sediment, metals, and other toxic chemicals used in processing ores. Water uses most likely to be affected by mining operations include cold water fisheries, salmonid spawning, and primary and secondary contact recreation.

Mining in Idaho is both an important resource industry and recreational pastime. Activity fluctuates, however, with the price of recoverable metals. Many of the smaller mines operate sporadically. Closure of a large operation, the Blackbird Mine at Cobalt, and temporary closure of two silver mines occurred due to low metals prices.

Regulatory control of mining activities involves several different agencies. Water pollution control aspects of mining are directly addressed by DEQ through plan and specification review under authority provided in Idaho Code 39-118. Direct regulatory oversight for cyanide leaching facilities is provided under Idaho Code 39-118A. Title 1, chapter 13, Rules and Regulations for Ore Processing by Cyanidation establish procedures and requirements for permits to construct, operate and close a cyanidation facility. The regulations were adopted in 1988. Requirements for permit issuance include certified plans and specifications, an operating plan that describes water management, monitoring, and discharge response. The DEQ also certifies dredge and fill permits (404) from the Army Corps of Engineers and point source discharge (NPDES) permits (401) from the U.S. Environmental Protection Agency.

For mining projects proposed on state or patented lands, the Division provides input on water quality protection practices through review of the Reclamation Plan required by Idaho Department of Lands. For mining projects proposed on federal lands, the Division provides review and comment on Environmental Assessments and Environmental Impact Statements through the NEPA process.

Program Accomplishments

Mining related efforts have concentrated on plan and specification review and approval and certification of 404 and NPDES permits. Guidelines for Mine and Mill Waste Disposal were developed under contract in 1979 to establish consistency in review of plans and have been used by field staff since their completion. An abandoned mine tailings project was completed in 1979 to address problems occurring in the South Fork of the Coeur d'Alene River. The project inventoried abandoned tailings sites and attempted to establish ownership, proposed alternative means of reclamation, identified possible funding sources for reclamation and proposed a state reclamation statute to establish a statewide reclamation program. Little or no public support for implementing these recommendations has been indicated.

More recently emphasis has been placed on the control of cyanide leaching operations. There have been several incidents of surface water and groundwater contamination in the last few years that have prompted a closer look at these type of operations. The Rules and Regulations for Ore Processing by Cyanidation will provide a mechanism for dealing with these concerns.

Future Program Direction

The state currently does not have a comprehensive planning document for a mining nonpoint source control program. One of the program needs is to complete a statewide strategy so that the many varied and scattered operations can be evaluated and managed through established intergovernmental coordination. The strategy could address the regulatory agency roles and authorities as well as the operator's responsibilities. Public information materials would be developed to clarify agency roles and operator requirements. Policy for controlling mining nonpoint source pollution would be developed to assure consistency in management actions statewide.

Forest Practices

Forests cover 40 percent of Idaho's 53 million total land acres. Approximately 84 percent of the forest land is publicly owned, and national forests are the principal administrative agencies. Of lands classified as timberlands, forest industry owns 7 percent and nonindustrial private owners hold 12 percent. Idaho forests produced 2.1 billion board feet of timber in 1980. Harvest intensity is high on the private forests and often exceeds net growth. In the case of sawtimber, removal on industry lands is about twice as much as net growth (Benson 1987).

Work in the forest practices area has accelerated as a result of public concern regarding protection of water quality. Increased harvest intensity in the checkerboard ownership lands (national forest and private) of north Idaho have focused concern on the adequacy of state laws in preventing stream degradation. Release of national forest plans in Idaho have stimulated scrutiny of Clean Water Act requirements for nonpoint source activities. These concerns have resulted in revision of forest practice rules and increased effort by industry and agencies in application of best management practices.

The Silvicultural Nonpoint Source Task Force (Bauer, et al. 1985) examined timber harvest operations at the request of the Health and Welfare Board, and made recommendations for changes in administration of the Forest Practices Act (FPA). The Nonpoint Source Interagency Team, formed by Governor John Evans, recommended revisions to water quality standards for nonpoint sources (IDHW, 1986). These revisions to the state standards, completed in March 1987, recognize the feedback loop concept for control of nonpoint source pollution. The water quality standards recognize the FPA Rules and Regulations as the best management practices for forest activities. IDL has the responsibility for administration of the FPA on state and private lands. DEQs role is to evaluate the effectiveness of these practices through instream monitoring and make recommendations for changes to the FPA rules if necessary.

Program Accomplishments

Major improvements have been made in the forest practices program since 1985. These changes are the result of the combined efforts of the forest industry, federal agencies, state agencies, and concerned citizens. In 1985 the Forest Practices Advisory Committee made a thorough revision of the Forest Practices Rules and Regulations. The changes were based on recommendations made in the 1979 Section 208 plan, and reflected an effort to make the rules more enforceable. Changes recommended by the Silvicultural Nonpoint Source Task Force were considered by the advisory committee and have subsequently been adopted.

The Idaho Department of Lands (IDL) has made substantive changes in their administration of the Forest Practices Act. In 1985, minimal effort (approximately 1 full-time employee) was spent on administration of the Act. Since that time staffing levels have gradually increased to ten full-time Forest Practice Act Advisors and a FPA Coordinator. This has increased inspection, enforcement, and information and education activities on forest practices. These increases in staffing levels were supported by the forest industry. IDL has made major efforts to improve application of best management practices on state forests. The agency goal is to meet or exceed the requirements of the FPA on state lands.

DEQ has also increased its efforts on forest practices since 1985. In cooperation with USFS, IDL, EPA, and BLM, the Water Quality Bureau revised the Section 208 Plan originally completed in 1979. The Forest Practices Water Quality Management Plan (IDEQ, 1988) is updated to include the feedback loop concept incorporated into the State Water Quality Standards in March, 1987, and to address requirements of the Water Quality Act of 1987. The plan identifies the U. S. Forest Service, the Bureau of Land Management, and IDL as designated management agencies. On-going or new program objectives have been identified as action items in the management plan.

The Water Quality Bureau's efforts on the forest practices program have likewise increased since 1985. The 1987 legislature approved four new positions; this increased staffing from approximately 0.5 FTEs in 1985 to 5.0 FTEs in 1988. This provides DEQ with the capability to implement the feedback loop procedure adopted by the legislature in 1987. DEQ has provided comments on National Forest Plans and environmental assessments relative to meeting the state's water quality standards. Monitoring coordination has been pursued through participation in Region 1 and Region 4 National Forest work groups as well as commenting on the requirements for monitoring in the Forest Plans. DEQ has participated in IDL internal audits and various field reviews on state, private, and federal lands in response to public inquiry. DEQ has been an active member of the Forest Practices Advisory Committee.

Future Program Direction

Program direction for DEQ is established by the action items in the Forest Practices Water Quality Management Plan and in response to local concerns and opportunities. The action items also provide direction to the designated management agencies for the water quality protection elements within their responsibilities. The action items are listed below.

1. Forest Practice Notification/State and Private Lands
2. IFPA Inspection Procedures/State and Private lands
3. IFPA Enforcement Procedures/State and Private lands
4. Training and Education
5. Revision of Best Management Practices
6. Forest Practices Audit Team
7. Internal BMP Implementation Audits
8. Monitoring Coordination
9. Water Quality Criteria
10. Cumulative Effects in Mixed Ownerships
11. Plan Evaluation Report

DEQ will continue to work on development of sediment criteria and sediment monitoring procedures. Criteria development applies to nonpoint source programs in general. Intensive surveys to assess the impact of forest practices are being initiated in the Coeur d' Alene, Lewiston, and Boise regional offices. The regional offices will work with land management agencies to review planned activities and conduct field reviews of ongoing forest practices. Coordination of monitoring activities and establishment of standard assessment techniques will continue within DEQ and with other state and federal agencies. The statewide FPA audit was conducted during the 1988 field season by an interagency team with expertise in water quality, forestry, fisheries, and hydrology. The Division will work closely with IDL and other agencies to initiate demonstration projects on cumulative impacts in mixed ownership drainages.

Other Agency Nonpoint Source Programs

Section 319 requires the state to describe existing state and local programs. The intent is to compile a catalogue of existing techniques and approaches so that additional tools necessary for improved nonpoint source control can be identified and developed through the Nonpoint Source Management Plan. Summaries of federal programs are also provided.

Programs of the Division of Environmental Quality for agriculture, forest practices, and mining were described in the previous sections. The following are program descriptions and processes for BMP selection of other agencies.

The Idaho Department of Lands is the lead state agency for permitting surface mining operations. The IDL is involved in BMP implementation and administration of regulatory programs. The IDL views its future role as one of increasing emphasis and involvement regarding nonpoint source control. The regulatory authorities and programs of the IDL are briefly explained here.

Idaho Lake Protection Act of 1974

Title to the beds of all navigable Idaho waterways was vested in the state at the time of statehood by virtue of the Admissions Act and application of the Equal Footing Doctrine. Consequently, the construction of docks or similar facilities to gain access to deep water is not a right of the upland owner because the state owns the bedlands. The construction of such facilities in all cases requires prior state consent. The department has authority to regulate privately owned overflowed lands as well.

The State Board of Land Commissioners is responsible for managing the beds and banks of all navigable Idaho waterways by virtue of Section 58-104(9) and 58-142, et seq., Idaho Code. Section 58-104 (9) defines the board's regulatory responsibilities and reads in part:

To regulate and control the use or disposition of lands in the beds of navigable lakes, rivers, and streams to the natural or ordinary high water mark thereof, so as to provide for their commercial, navigational, recreational, or other public uses.

Section 58-142 establishes the criteria to be used in evaluating a proposed waterway development in navigable Idaho lakes and reads in part:

Legislative intent -- Navigable lakes -- Encroachment. The legislature of the state of Idaho hereby declares that the public health, interest, safety and welfare requires that all encroachments upon, in or above the beds or waters of navigable lakes of the state, be regulated in order that the protection of property, navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality be given due consideration and weighted against the navigational or economic necessity or justification for or benefit to be derived from the proposed encroachment.

The Department of Water Resources (IDWR) regulates navigable rivers by virtue of the Stream Channel Protection Act (Chapter 38, Title 42, Idaho Code) and a Memorandum of Understanding with IDL. IDL retains proprietary responsibility for all navigable waterways; however, the state's proprietary interest only becomes important when addressing leasing of these sovereign bedlands. The IDWR authority is regulatory in nature and applies to alterations below the "Mean High Water Mark" on all streams which have "continuously flowing water."

Idaho Forest Practices Act

The authority for promoting use of good practices on state and private forest lands is contained in the Idaho Forest Practice Act, Title 38, Chapter 13, Idaho Code. The Act gives the Idaho Board of Land commissioners the authority to adopt rules and regulations, to make repair orders, and to take enforcement action.

The policy of the Forest Practices Act is to encourage forest practices on state and private lands that maintain and enhance forest resources and their social and economic benefits. In regard to environmental protection the Board has the "authority to adopt rules designed to assure the continuous growing and harvesting of forest tree species and to protect and maintain the forest soil, air, water resources, wildlife, and aquatic habitat." (Section 38.1302(2), Idaho Code). IDL is the designated 208 management agency for state and private forest lands.

IDL has the responsibility to apply best management practices on state lands which will provide for protection of beneficial uses of water consistent with the Forest Practices Act. On private lands, IDL has the responsibility to ensure that the Forest Practice rules are applied to provide for desired levels of stream protection and to take enforcement action when needed to achieve this goal. IDL has specific responsibilities for reporting, monitoring, and program evaluation. An important function of IDL is to identify for adoption by the Board of Land commissioners revisions of the Forest Practice Rules needed to protect beneficial uses of state waters.

District Health Departments

The state of Idaho is divided into seven individual health districts which are responsible for administrating some of the activities that affect public health and safety on a regional basis. The health districts operations affect three major nonpoint source generating activities. The regulating and inspecting of individual sewage disposal systems through Rules and Regulations

for Individual and Subsurface Sewage Disposal Systems is one aspect. Individual districts also provide assistance in inspecting, siting and the operation of solid waste disposal sites. The location and mode of site operation can affect, to varying degrees, the quality of surface and groundwater. Health districts also cooperate with DEQ on the prevention, control and containment of spills of hazardous materials.

District health departments may also be involved in 208 planning sponsored by a regional planning organization on a contract or advisory basis. A Memorandum of Understanding (MOU) between the health districts and the Division of Environmental Quality has been in place for many years and has recently been updated. The MOU describes cooperation and communication efforts that should occur under each of the NPS activities mentioned.

Idaho Department of Fish and Game

The Idaho Department of Fish and Game (IDFG) has involvement in NPS control as a reviewing agency, since they have no direct regulating or enforcement authority to maintain water quality. The IDFG reviews and comments on Corps of Engineers 404 fill and discharge permits, and on specific stream channel alteration permit applications submitted to the Idaho Department of Water Resources. All stream channel alteration permits are submitted to IDFG except where the Director of the IDWR determines that an alteration will meet "minimum standards" as defined by Rule 9 of the IDWR Rules and Regulations for Stream Channel Alterations. The IDFG also maintains information on fish kills.

Idaho Transportation Department

The Division of Highways of the Idaho Transportation Department (ITD) has jurisdiction over the construction and maintenance of the state highway system. They must assure the adequate protection of water quality resulting from any highway project. Runoff from land disturbed by activities associated with highway construction and maintenance is the primary source of nonpoint pollution that ITD controls. The ITD's standard Specifications for Construction, Construction Manual, Contract Specifications, Maintenance Manual, surveillance by division personnel and Handbook of Best Management Practices for Road Activities all serve to minimize nonpoint source pollution.

Soil Conservation Service

The experimental federal Rural Clean Water Program (RCWP) was initiated in 1980 to demonstrate the effectiveness of the USDA agricultural nonpoint source program; approximately \$60 million was allocated to 21 projects. The Idaho Rock Creek Project in Twin Falls County was one of the 21 projects approved. Rock Creek was one of five approved for comprehensive monitoring and evaluation. It is described in more detail in a previous section of this report. (See page 38).

The Small Watershed Program (Public Law or PL 566) is administered by the Soil Conservation Service. Local sponsors include Soil Conservation Districts, irrigation districts, counties, and cities. The program helps protect, manage, improve, and develop the water and related land resources of a watershed up to 250,000 acres in size. It is based on:

1. Local initiative and responsibility.
2. Federal technical and cost-sharing assistance
3. State review and approval of local proposals for state financial and other assistance.

The program has six major purposes: Flood prevention, watershed protection (including water quality), agricultural water management (including water quality), and fish and wildlife enhancement. Federal funds are matched with state and local funds to provide structural and land treatment measures. Conservation practices are evaluated on all PL-566 proposals. Erosion and sedimentation control effectiveness are evaluated along with costs and benefits. Public benefits are an important consideration in these projects.

The Conservation Technical Assistance program is the largest program within the Soil Conservation Service. Under Public Law 46, it provides each state with technical assistance funds to address critical soil erosion, sedimentation, and water quality problems. The SCS Technical Guide is developed and maintained through this program. The guide contains 155 different conservation practices applicable to cropland, rangeland, woodland, pastures, lakes, ponds, and streams. These practices are evaluated and updated as new technical data is developed. Those practices listed in the guide which have specific water quality benefits have been recognized as BMP's.

Agricultural Stabilization and Conservation Service

The Agricultural Stabilization and Conservation Service (ASCS) administers several USDA programs which directly benefit Idaho's water quality. They provide cost-share assistance to farmers in the Rock Creek Rural Clean Water Program. Funding is provided state-wide for installation of conservation practices under the Annual Cost-share Program which allows up to \$3,500 per land user. Long term agreements with individuals provide \$3,500 annually for up to 10 years. Groups of farmers may also apply to ASCS for Special Water Quality Project funding. The ASCS administers the conservation compliance provisions of the 1985 Food Security Act (FSA). The Conservation Reserve Program (CRP), another provision of FSA, provides farmers the opportunity to contract with ASCS to maintain protective vegetative cover on critical cropland for a period of 10 years.

Bureau of Land Management

The Bureau of Land Management (BLM) in Idaho develops conservation measures for controlling nonpoint sources through the use of the BLM planning system. Goals for nonpoint pollution control are set in general terms during the development of Resource Management Plans (RMP). The RMP is an interdisciplinary document for the purpose of defining areas of allowable land use that are consistent with the overall goals of the Federal Land Policy and Management Act (FLPMA). Essentially, the RMP is a land use plan with a broad framework.

During implementation of the RMP, activity specialists in the fields of hydrology, fisheries, and/or wildlife generally take the lead in determining the conservation measures most appropriate in preventing pollution from a particular activity. These measures, for the most part, are traditional land use practices coupled with the latest cost-effective technology or innovation of the specialist thought to be effective for minimizing or preventing pollution in a particular situation. A critical part of the implementation process is the development of monitoring plans. These plans provide a means of evaluating the effectiveness of a conservation measure and identifying alternative approaches where a measure is shown to be ineffective. The BLM has submitted to the Environmental Protection Agency a draft of a Memorandum of Understanding that more succinctly defines this process. For some non-BLM activities, such as timber sales, small hydroelectric development, and some mining operations, the BLM develops stipulations that function much like the requirements of a contract. In these cases, the BLM acts as a compliance officer or contract inspector to ensure the users of public lands are following agreed upon conservation measures. In addition to these processes, the BLM is beginning a program for the assessment of conservation measures relating to riparian systems. This program will identify both successful and unsuccessful conservation measures, attempt to

determine why measure were successful/unsuccessful, and develop methodology to extrapolate the information to other areas. The Division of Environmental Quality has been formally asked to participate in this program.

U.S. Forest Service

The U.S. Forest Service (USFS) is the designated water quality management agency for National Forest System lands pursuant to Section 208 of the Clean Water Act. As such, the Forest Service is responsible for implementing best management practices on National Forest System lands in compliance with state Water Quality Standards. Management and administration of National Forest System lands is further mandated by a number of federal laws and executive orders which require protection of water quality and management of multiple uses of the forest in addition to the Clean Water Act. Under requirements of the National Forest Management Act, all national forests are preparing comprehensive Forest Plans to describe future forest management. These plans are designed to protect and maintain water quality and beneficial uses. Included in the land and resource management process are site specific environmental assessment, monitoring and evaluation of project implementation, and identification of improvement opportunities to protect water quality and beneficial uses. USFS also places a strong emphasis on coordination and cooperation with other federal and state agencies, industry, and individuals.

Environmental assessments are prepared for projects identified in the Forest Plan prior to implementation. An environmental assessment of site specific and cumulative effects is conducted by an interdisciplinary team. Best management practices are identified and specified by the team. In Forest Service activities, BMPs are described as both a process mechanism and site specific conservation practices. The BMP process mechanism is used to determine and design the site specific practices that are needed to achieve management goals and objectives. Projects or portions of projects that will not meet stated management goals, objectives, or standards are modified, rescheduled, or dropped from analysis. Site specific conservation practices that are needed to ensure compliance with objectives and standards are incorporated into project plans and designs for enforcement through administrative contracts and specifications.

During and after project implementation, the Forest Service evaluates BMP implementation, administration, and effectiveness to determine water quality effects. This is accomplished through internal implementation audits (post-project review), on-site and in-stream monitoring, and ongoing research programs. Results are provided to the state along with recommendations for revision of existing practices if necessary.

The Forest Service also coordinates and participates with the Idaho Department of Health and Welfare's, Division of Environmental Quality and the Idaho Department of Lands to develop and evaluate BMPs.

U.S. Bureau of Reclamation

The Pacific Northwest Regional Office of the Bureau of Reclamation is located in Boise and administers the Bureau's activities in the entire northwest, including the state of Idaho. Their involvement with nonpoint source pollution is limited to monitoring water quality related to project planning, construction, operations, and recreational aspects of the Bureau's water supply and storage programs. Established by the Reclamation Act of 1902, the Bureau's involvement in water quality came about indirectly due to their activities with water storage and distribution facilities. They have no legislative or codified authority to regulate or enforce water quality standards or requirements.

Process for Identifying Nonpoint Source Best Management Practices

Section 319 of the Clean Water Act requires states to develop Best Management Practices (BMPs) to reduce pollution from nonpoint source categories and subcategories. For the 1988 Idaho Water Quality Status Report and Nonpoint Source Assessment, Section 319 requires states to identify regulatory and nonregulatory programs to assist in the development and implementation of BMPs. This includes enforcement, technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring or evaluation of water quality. States are also required to describe the process, including intergovernmental coordination and public participation, for identifying BMPs and measures to control nonpoint sources or reduction of pollution.

Under Section 208(b)2 of the Clean Water Act, states were required to develop procedures and methods to control pollution from agriculture, forest practices, mining, construction, disposal of residual waste, and disposal of pollutants on land or in subsurface excavations.

The procedures which states developed to meet these requirements are BMPs to minimize nonpoint source pollution. BMPs are "A practice or combination of practices determined by the Department (of Health and Welfare) to be the most effective and practicable means of preventing or reducing the amount of pollution generated by nonpoint sources" (Idaho Water Quality Standards and Waste Water Treatment Requirements, IDAPA 16.01.2003,02).

Under the Idaho Water Quality Standards, water quality monitoring and surveillance of nonpoint source activities will be used to evaluate the effectiveness of BMPs in protecting the existing beneficial uses and determine the need for modification. This process of modifying BMPs as needed is referred to as the "feedback loop." BMPs for nonpoint source pollution which are approved according to the Water Quality Standards are the Idaho Forest Practices Rules; the Rules Governing Subsurface and Individual Sewage Disposal Systems; and Rules and Regulations and Minimum Standards for Stream Channel Alterations.

BMPs have been developed for other activities which might cause nonpoint source pollution but these are not officially approved in the Water Quality Standards. These additional BMPs include "Best Management Practices for Road Construction," and the "Agricultural Pollution Abatement Plan" which includes BMPs for agricultural activities.

According to the 1988 Nonpoint Source Assessment, the nonpoint source activities having the greatest impact on water quality are agriculture, forest practices, mining, and hydrologic/habitat modification. BMPs have not been compiled for mining or hydrologic/habitat modification, but BMPs will be considered in the development of the Management Program Plan for these activities.

The following discussion provides a description of the process for identifying BMPs for forest practices, mining, road construction, subsurface sewage disposal, agriculture, and stream channel alterations.

Forest Practices: Description of Process for Identifying BMPs

The Idaho Forest Practices Act, Rules and Regulations relating to water quality have been identified as the BMPs for forest practices. These rules were identified as BMPs during Section 208 planning as documented in the Idaho Forest Practices Water Quality Management Plan (1988). These rules are officially identified as BMPs for forestry in the Idaho Water Quality Standard (IDAPA 16.2300, 05.a.).

The procedure for revising the Rules and Regulations is dictated by the Idaho Forest Practices Act (Title 38, Chapter 13, Idaho Code), the Administrative Procedures Act (Title 67, Chapter 52, Idaho Code), and by Memorandum of Understanding. According to the IFPA the Idaho Board of Land Commissioners will adopt rules for forest regions establishing minimum standards for the conduct of forest practices on forest land. A seven-member Forest Practice Advisory committee is appointed for the purpose of providing technical advice to the Board in developing the Rules and Regulations. The seven member advisory committee is composed as follows, based on the statute:

1. One member from each of the two forest regions is a private landowner, private timber owner, or their authorized representative.
2. One member residing in each forest region is an operator.
3. One member residing in each region is a representative of the general public.
4. The remaining member is a resident of the state.

A member of the Idaho Department of Lands (IDL) serves as the secretary of the committee. The Director of the Department of Lands has expanded representation on the committee by appointing ex-officio members. Five ex-officio members were appointed in 1987; this includes the executive director for Idaho Forest Owners Association, a small logging business contractor, a representative for the Division of Environment Quality, an independent resource consultant, and a fisheries biologist with the USFS.

The Administrative Procedures Act governs rule-making by all state agencies. Request for written comment on the Rules and Regulations is solicited by legal notice in community newspapers. A public hearing will be held if 20 or more individuals express an interest in a hearing. The regulations are submitted for approval to the Board of Land Commissioners. Rules become effective within 20 days of transmittal and publication by state law libraries. The new rules are subject to legislative review.

In practice, recommendations for changing the Rules and Regulations are submitted to the Forest Practices Advisory Committee. The Committee considers the change and makes a recommendation to the Director of IDL and the Land Board. IDL staff then propose the rules through the Administrative Procedures Act which includes public review. The Land Board then moves to adopt the final draft of the rules.

Idaho Department of Lands and Idaho Division of Environmental Quality (DEQ) have signed a Memorandum of Understanding to implement the feedback loop process. Under this agreement DEQ is responsible for monitoring impacts of forest practice activities and IDL is responsible for administration of the IFPA Rules and Regulations. When DEQ finds that a specific rule is not protecting beneficial uses, a request for modification with rationale is sent to IDL. Within 30 days the Director of IDL will either initiate a rule change through the procedures outlined above or will deny the request stating the reasons for denial. This process was formally adopted in 1987.

Road Construction: Description of Process for Identifying BMPs

The handbook, Best Management Practices for Road Activities, Volume I and II, 1982, was prepared in accordance with Section 208(b)(2)(H) of the Clean Water Act. Section 208 required states to develop "a process to (i) identify construction activity related sources of pollution and (ii) set forth procedures and methods to control to the extent feasible such sources."

The process of BMP identification for the handbook involved the technical assistance of the following agencies and organizations:

Association of Idaho Cities
Idaho Association of Commissioners and County Clerks
Idaho Association of Highways and Good Road Districts
Idaho Conservation League
Idaho Department of Fish and Game
Idaho Department of Lands
Idaho Transportation Department
Idaho Department of Water Resources
Morrison Knudsen Company, Inc.
Potlatch Corporation
Soil Conservation Service
U.S. Department of Agriculture - Forest Service Region 1
U.S. Department of Agriculture - Forest Service Region 4
U.S. Department of the Interior - Bureau of Land Management
U.S. Department of the Interior - Fish & Wildlife Service
U.S. Department of Transportation - Federal Highway Administration

Although not on the approved list of BMPs contained in the Idaho Water Quality Standards, the handbook supports the standards by recommending and describing BMPs as required for control of nonpoint sources of water pollution (IDAPA 01.2300.04). Nonpoint source activities lacking rules and regulations are required to be conducted "in a manner that demonstrates knowledgeable and reasonable effort to minimize resulting adverse water quality impacts." The BMP Handbook provides guidelines necessary to clarify nonpoint requirements applicable to road construction activities and serves as a reference for determining compliance with State Water Quality Standards. As of 1982, the BMPs for Road Activities have not been formally evaluated or revised. BMP evaluation should be conducted via the feedback loop, as described in the Water Quality Standards. The Handbook may be incorporated into the Water Quality Standards during future revisions. If such revisions were proposed, the public would be afforded comment and hearings as provided by the Administrative Procedures Act (Chapter 52, Idaho Code).

Mining: Description of Process for Identifying BMPs

A handbook of BMPs for mining activities has not been developed or compiled by the state. Certain reclamation practices and standards are required by the Idaho Department of Lands (IDL) under the Surface Mining Act and the Dredge and Placer Mining Protection Act. Rules and Regulations Governing Dredge and Placer Mining Operations in Idaho (IDAPA 20.08) also describes reclamation practices and appropriate sediment control measures (Rule 14) to be applied.

In many cases, measures to control nonpoint sources of pollution from surface mining operations are developed jointly by the IDL and the mining company, with input from other state agencies. The IDL is currently developing regulations for surface mining that will include BMPs. Opportunity for public comment is provided during the rule making process in accordance with the Administrative Procedures Act.

Subsurface Sewage Disposal Systems: Description of Process for Identifying BMPs

Standards for Subsurface Sewage Disposal Systems were first developed in Idaho in 1964, and were revised in 1970. The standards were prepared primarily as BMPs and were not

regulatory. The U.S. Department of Health, Education, and Welfare Manual of Septic-Tank Practice was used to supplement the standards. Rules and Regulations for Individual and Subsurface Sewage Disposal Systems were approved by the Idaho Legislature in July 1971, and became effective August 18, 1971. The Regulations were revised in May 1976, February 1978, and October 1985. Each edition of the Regulations also included standards which were considered to be BMPs. In 1971 the health districts were designated the major regulatory authority of the subsurface sewage disposal program. The specific division of responsibilities for this program between the Idaho Department of Health and Welfare and the health districts is delineated in a Memorandum of Understanding for Environmental Services.

In Idaho, a subsurface sewage disposal systems report was developed under Section 208 of the Clean Water Act. A major subsection of this report suggested BMPs incorporating newly developed alternative practices with conventional systems which would allow systems to operate without creating a public health hazard and without pollution of ground and surface water.

The 1985 revision to the regulations included many recommendations from the Section 208 report. One recommendation incorporated into the regulations requires the Director of the Idaho Department of Health and Welfare to appoint a six member Technical Guidance Committee composed of three representatives from the health districts, one from the Division of Environmental Quality, one professional engineer licensed in the state of Idaho, and one licensed installer. The duties of the Technical Guidance Committee are to maintain a technical guidance manual which includes BMPs used in the design, construction, alteration, operation, and maintenance of conventional subsurface sewage disposal systems and their components and alternative systems. The committee also reviews variances and provides recommendations on such variances.

The regulations and the Technical Guidance Manual allow for variances by which a person may petition to seek relief from the requirements. Public notice is required as a part of the variance procedure providing an opportunity for public input.

Agriculture: Description of Process for Identifying BMPs

A list of BMPs for controlling agricultural nonpoint source pollution is contained in the Idaho Agricultural Pollution Abatement Plan, last revised in 1983. This list is the product of coordinated input from the 51 soil conservation districts (SCDs) in the state. Each SCD Board of Supervisors identifies those management practices used locally which address nonpoint pollution problems. The Soil Conservation Service Field Office Technical Guide is the primary reference cited. Each of the practices listed is supported by technical standards and specifications. SCDs identify additional practices, as needed, to address specific water quality problems. Lists submitted by each SCD are reviewed and evaluated to determine the degree to which each BMP satisfies the requirements of Section 208 of the Clean Water Act. Each BMP must be effective in controlling nonpoint source pollution, be economically acceptable, and be socially acceptable. Those BMPs satisfying these requirements are added to the List of Best Management Practices. A catalogue of BMPs was developed to provide a standard for each BMP.

Following the development of the BMP catalogue, each SCD and cooperating agency has the opportunity for review and comment. Over 100 meetings were held statewide in 1977 and 1978 to develop the original list of BMPs present in the BMP catalogue. The scope of the BMP catalogue is necessarily broad for application statewide. The BMP catalogue addresses irrigated and non-irrigated cropland, pastureland, hayland, and grazing land.

Because of the numerous variables, BMPs must be designed, developed and constructed for specific sites in accordance with local climatic, soil, topographic, vegetative, and other conditions. Each BMP is categorized by land use and the pollutants addressed. A process for evaluating the effectiveness of BMPs was developed for use in updating and revising the BMP list. This process is identified in the Idaho Agricultural Pollution Abatement Plan.

Stream Channel Alterations: Description of Process for Identifying BMPs

The Idaho Department of Water Resources Stream Channel Alterations Rules and Regulations and Minimum Standards are cited as "approved BMPs" in the Idaho Water Quality Standards for nonpoint sources (IDAPA 16.01.2300,04.d). These BMPs implement provisions of the Stream Channel Protection Act passed by the Idaho Legislature in 1971.

Rules under the Act were first adopted in 1973 by the Idaho Water Resources Board. They were revised in 1975, 1978, 1981, and in 1982 in response to changing technology and policy. Periodic reviews of the rules may result in changes which are officially proposed by the Idaho Department of Water Resources and the Idaho Water Resource Board. Before the rules are revised, a public hearing is conducted and input received from the public during a 20-day comment period. The most recent version resulting from revisions was adopted in November, 1982.

Under the Stream Channel Protection Act a permit is required for stream channel alterations including those requiring machinery to operate in the stream. The rules and regulations specify procedures for reviewing applications submitted for all types of stream channel alterations except: construction of dams and reservoirs, construction and maintenance of canals and ditches, and in some instances, removal of obstructions and debris from a stream channel. Intermittent streams are also excluded.

The provisions specify a set of standards which in most cases prescribe the minimum conditions for approval. These minimum standards describe construction procedures and designs for rip rap, dikes, levees, jetties, culverts, bridges, pilings, and pipe crossings. They also specify methods for removal of sand and gravel deposits, and requirements for operating suction dredges.

If a proposed alteration is not designed in accordance with the adopted minimum standards, a copy of the application is sent for review to those state agencies requesting notification. At this time the Department of Water Resources routinely notifies the Idaho Departments of Lands, Fish and Game, and Department of Health and Welfare regional offices.

Regardless of whether or not minimum standards are complied with, the Director of the Department of Water Resources may request review by other state agencies. The Director may also approve a permit without any external review if "...the work is of a nature not uncommon to the particular area and where it is clear that the work will not seriously degrade the stream values," and all work is accomplished according to the minimum standards.

Any applicant who is denied or granted a conditional permit may seek a hearing before the Board of Water Resources by written request within 15 days of receipt of the Director's decision. Any applicant who is aggrieved by the decision of the Board may appeal to the district court.

Point Source Control

The mechanism for control of point source pollutant discharges in Idaho is the National Pollutant Discharge Elimination System (NPDES). The program is administered by the U.S. Environmental Protection Agency (EPA) with coordinated review by the Division of Environmental Quality (DEQ). DEQ's primary role is to establish effluent limitations in accordance with the Idaho Water Quality Standards and Wastewater Treatment Requirements (WQS). The goal is to ensure compliance with applicable state and federal water quality regulations.

The NPDES program provides for: 1) advance notice of proposed point source discharges; 2) the issue of permits for discharges; 3) establishment of minimum treatment requirements as permit conditions; and when necessary, 4) inclusion of compliance schedules to correct pollution problems attributable to the specific discharge.

Program Accomplishments

Point source discharges can be municipal or industrial and are classified as "major" or "minor". EPA classifies each point source as major or minor discharger using a rating system. The rating is based on the nature and volume of the discharge, its potential public health impacts, the volume of the receiving water, and state water quality factors. Currently there are 28 major municipal facilities and 36 major industrial facilities in Idaho. All have been meeting their permitted effluent limits. EPA's program has not been without enforcement actions, however, concerning illegal discharges and mandatory treatment plant improvements. During the last two years, 15 administrative orders and 3 civil referrals have been submitted by EPA.

In 1984 DEQ discontinued compliance inspections of major industrial facilities. This change was a result of resource cutbacks and increased emphasis on nonpoint source control programs. EPA has assumed responsibility for compliance inspections for major industrial facilities. DEQ continues to conduct inspections on major municipal facilities.

In the past two years, progress has been made in protecting water quality through issuance and reissuance of permits to many "minor" point source dischargers. More than 80% of Idaho's dischargers are minor with cumulative impacts suspected to be significant. EPA has been able to clear the backlog of permits for major facilities and has reissued permits for 92 minor dischargers. About one half of these were aquaculture facilities, which are sources of excess nutrients, organic matter, and sediment.

Another accomplishment of the point source control program has been the reinstatement of the permit program for confined animal feeding operations (CAFOs), primarily dairies and feedlots. EPA has developed a general permit for these types of operations which previously were considered "minor" dischargers. Permits under the former program expired in the late 70s and since then these facilities have been largely ignored. Frequent discharges have occurred from these facilities causing nutrient, sediment, and bacterial pollution of surface waters. Significant impacts on several priority stream segments have been documented, such as the Portneuf River and Deep Creek. Guidelines for controlling runoff and animal waste discharges were developed by DEQ to enhance compliance with the federal permit. DEQ has also committed field resources to aid EPA in compliance inspections. Approximately 40 CAFOs have been permitted by EPA since the general permit went into effect in 1987.

The point source control program is responsible for certifying that federal permitted and licensed water related activities meet WQS under Sections 401 and 402 of the Clean Water Act. During the past two years water quality certifications, denials, or waivers were made for 145

U.S. Army Corps of Engineers permits, 22 Federal Energy Regulatory Commission licenses, and 101 NPDES permits.

Future Program Direction

The primary need of the point source program is continued and increasing effort in the control of discharges from dairies and feedlots. Education and information workshops for operators are needed for an effective program. Control of other minor discharges, such as geothermal wastewater and stormwater is also an ongoing concern.

State regulations for permitting the construction, operation, and closing of mining facilities that utilize ore processing by cyanidation have been adopted. The point source control program will be responsible for registering the existing facilities and developing and issuing the permits for new and modified facilities.

Also, state Wastewater-Land Application Permit Regulations have been adopted and Guidelines for Land Application of Municipal and Industrial Wastewater have been developed. These regulations and guidelines establish procedures and requirements for the issuance and maintenance of pollution source permits for the treatment of municipal and industrial wastewaters by application to land. The point source control program will be responsible for the issuance of these permits.

State delegation of NPDES authority has been addressed in the past. The state's lack of freedom of information statues and inadequate penalties for permit violations, however, do not meet EPA's standards for transfer of NPDES program primacy.

Public Water Supply

In Idaho, groundwater is the main source of drinking water. The Water Quality Bureau of the DEQ has primacy for the state's public water supply program. The program's objective is to ensure that Idaho's 2,300 active public water systems are providing safe drinking water to their consumers. This objective is achieved by compliance with the state and federal drinking water regulations.

Program Accomplishments

In 1977, Idaho was given authority by the EPA to implement the federal Safe Drinking Water Act of 1972. The state promulgated drinking water regulations in November 1977. Those regulations were revised in July 1985. DEQ contracts with five district health departments to carry out the goals of the drinking water program. The districts are primarily responsible for small community and non-community drinking water systems. DEQ retains responsibility for the majority of the community systems.

The state's drinking water regulations require all suppliers to monitor their systems for maximum contaminant levels (MCLs) for various types of contaminants. All monitoring results must be reported to DEQ field offices or district health departments. Failure to conduct the required monitoring or MCL violations trigger follow-up actions by the responsible agency. These actions have been outlined in a compliance strategy which DEQ developed in June 1986. The strategy establishes procedures for both informal and formal enforcement actions.

Formal enforcement actions have been greatly enhanced by the passage of amendments to the state's Environmental Protection and Health Act, effective July 1, 1986. Since the passage of the act, the Director of the Department of Health and Welfare can issue administrative Notices of

Violation and enter into Consent Orders. The Director may also impose administrative penalties for first offenses. DEQ has developed streamlined, computerized procedures to enhance the ability to respond to violations.

The drinking water program remains a high priority within DEQ and compliance rates continue to improve. DEQ has greatly reduced the number of significant non-compliers (SNCs) within the past two years.

Future Program Direction

The drinking water program will likely remain a high priority for DEQ. However, the 1986 Amendments to the Safe Drinking Water Act will stress the ability to respond to violations while implementing the new requirements. New regulations must be written and implemented within the coming two to four years. Many of the new requirements will significantly impact small water systems. DEQ will be exploring funding mechanisms, such as low-interest loans, for those systems. DEQ will also be required to devote considerable resources to public information and education programs. This will be productive, however, enforcement may not be an area of emphasis during this time of transition.

DEQ may also develop drinking water wellhead protection programs and vulnerability assessments. In addition, DEQ must respond aggressively to any potential or actual groundwater contamination problems in order to protect this valuable resource.

Enforcement

In July 1986, DEQ began operating under new enforcement procedures. These procedures were developed in response to the amendments of the Idaho Environmental Protection and Health Act, effective July 1, 1986.

The amendments to the law allow the Director of the Department of Health and Welfare to issue Notices of Violation (NOVs) and enter into Consent Orders. The Director may also assess penalties of up to \$10,000 per violation, or \$1,000 per day for a continuing violation, for violations of the act or of the state environmental regulations.

The Enforcement Procedures Manual established informal and formal enforcement procedures to resolve violations of the regulations. The new procedures have significantly reduced the time required to pursue enforcement of violations. Under the old law, enforcement took a minimum of 160 days; the new law requires that a violation be resolved in 60 days.

Program Accomplishments

Since July 1, 1986, DEQ has initiated 36 drinking water enforcement actions and 15 water quality actions. DEQ has collected penalties totalling \$147,100 (May, 1988). The water quality cases have included violations from mining operations, illegal discharges, and failure to conduct required monitoring. The drinking water cases were most frequently initiated for failure to conduct monitoring, in particular, coliform density monitoring. There also have been violations of treatment requirements, maximum contaminant level violations, and construction standards violations.

Future Program Direction

DEQ is currently implementing several new regulatory programs, each of which will require planning and implementing an appropriate enforcement program. In addition, enforcement may be required following implementation of the new Safe Drinking Water Act requirements.

In the future, a successful enforcement program will require careful planning and adequate staff resources from the legislature to address what may be a significant increase in enforcement actions.

Municipal Construction Grants

Idaho operates both federal and state-funded Municipal Construction Grants Programs. Almost all of the functions of the federal program have been delegated to the state.

The goal of the construction grants program is to protect public health and water quality through grant support for construction of effective municipal treatment facilities. In most cases, however, showing the direct benefits of the program to the public is not easy. The value in bringing central collection and treatment to a neighborhood for the first time, for example, may not be immediately apparent to the residents. Even where on-site disposal has been working well and cross-contamination between sewage and water is not reported, abandoning densely placed individual systems greatly lessens the risk of contamination to domestic water supplies.

Clear benefits to instream water quality have been difficult to show quantitatively. Routine monitoring of instream conditions before and after facility construction by DEQ has not been conducted due to limited staff resources. Instead, secondary treatment requirements have been relied upon to establish acceptable effluent quality. Effluent limits are established based on adherence to instream quality requirements for beneficial use support.

Recently, in the construction grants program, there has been greater emphasis on instream water quality and public health impacts relative to developing priority lists and distributing funds for projects. This trend is clearly evident in Idaho's grants regulations, which have recently been revised to require rating and ranking of grant-seeking projects solely on the basis of water quality and public health needs. The EPA is also requiring that Idaho identify sewage-related public health and water quality problem areas statewide and give highest priority to those situations where wastewater treatment facility construction will be the greatest benefit.

Progress in Idaho's construction grants program during FY86 and FY87 can be demonstrated by examining several indicators. Populations receiving new secondary treatment services, numbers and types of new treatment facilities added, level of compliance with current treatment standards, and funds expended illustrate program accomplishments.

Program Accomplishments

More than thirty state and EPA grant-assisted projects have been completed in Idaho during the two-year period 1986-87. The result is that nearly 30,000 more Idaho people are now receiving full secondary treatment services.

Projects undertaken to add these enhanced services fall into three construction categories:

New Secondary Systems

Between five and ten percent of the new services have been provided by projects to construct new centralized facilities in towns where only septic rainfields were used before. Eight projects were funded and each included installation of a complete sewer network and construction of new treatment facilities. With completion of these systems, virtually all Idaho cities now have central sewer services.

Several of the recently completed systems are worthy of special note. Installation of new sewer lines in the city of Menan, for example, required considerable extra work by the engineer and contractor. What should have been a relatively easy sewer installation job in that city was complicated and delayed by persistent high groundwater under the town. To provide dry trenches for proper laying of sewer lines, nearly 40,000 gallons of water per day had to be pumped each day from the project area through numerous "dewatering" wells.

The cities of Viola, Fenn, and Carey also deserve special note. All have avoided surface water discharges by using land application technologies for final disposal in their new systems. Effluent from all three communities is being used to sprinkler irrigate farm lands.

New Interceptors to Existing Treatment Systems

About five percent of the new secondary services have been provided in the last two years by projects to extend interceptors from existing treatment facilities into new neighborhoods or communities where only onsite disposal existed before. The entire community of Ucon, for example, is now receiving secondary treatment through installation of an interceptor tying the city's new collector system to an interceptor in neighboring Idaho Falls.

Upgrade of Existing Treatment Facilities to Full Secondary

Approximately ninety percent of new secondary services have been provided through the upgrade of existing facilities which had been operating at some level less than full secondary due either to operation or structural problems or both. In the majority of cases, upgrade construction has involved relatively simple and inexpensive additions such as aeration and disinfection equipment. Improved operation and maintenance (O&M) has generally been emphasized in connection with construction improvements. In a few cases a better O&M program has been enough to bring about the required higher level of treatment.

The surplus of upgrade projects in recent years is tied to the mandate for universal secondary treatment by July 1, 1988 required by the 1981 amendments to the Clean Water Act (CWA). In 1984 DEQ identified fifty-seven Idaho communities which were not meeting the secondary treatment standards. The majority of these were found in need of some level of construction work. The rest had only operation and maintenance problems.

DEQ developed a municipal strategy in 1984 as a mechanism to help the non-compliant communities achieve the secondary standards by the 1988 deadline. The first task under the strategy was to place all fifty-seven communities on the compliance schedules under which they would achieve the desired level of treatment in an orderly manner (by milestones) before July 1, 1988. DEQ has made a strong effort to make both state and federal construction grants funds available to the communities to do construction. This is reflected in priority lists of the last four years. Most strategy communities have pursued the grant funds vigorously to complete various stages of their projects.

With the 1988 deadline fast approaching, it appears most of the strategy projects which needed only improved O&M programs have made the changes necessary to achieve compliance. Also, more than a dozen projects which were identified as needing structural improvements in 1984 have completed construction in the last two years with considerable grant assistance. This work has provided full secondary services for nearly 28,000 people statewide accounting for the large percentage of new services in the upgrade category. Another dozen or so construction upgrade projects should be completed before July 1, 1988. This should further swell the population figures in the upgrade of existing facilities category.

By adding new secondary services for nearly 30,000 additional people in the last few years, the total state population now served at this level has risen to 580,000 (Figure 44). This number represents about half of Idaho's 1985 population. Most of the wastewater treatment needs have been addressed; but, an increase in the number of people needing these services has occurred with identification of new needs and growth in population.

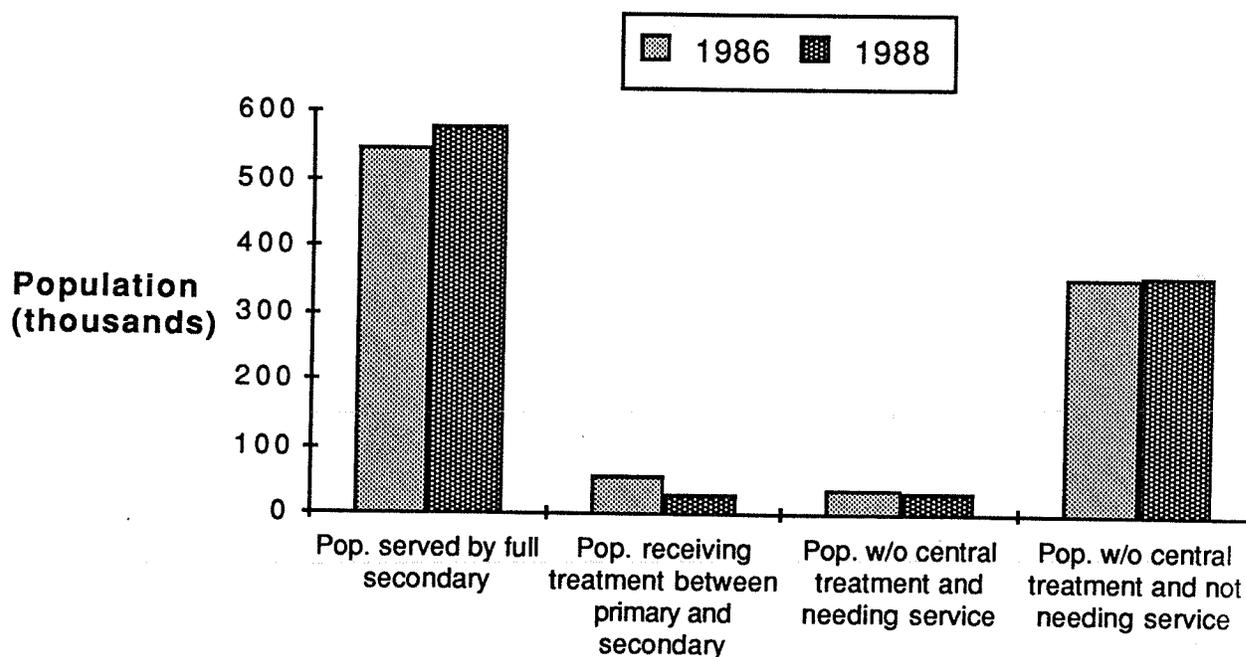


Figure 44. Treatment Facilities.

Compliance Levels

All of Idaho's major municipal facilities now have NPDES permits and are meeting the requirements of these permits. Major facilities are those discharging one million gallons per day (mgd) or more; this includes Idaho's thirteen largest cities. As noted above, Idaho has established a municipal strategy for the purpose of guiding a number of non-compliant minor facilities toward compliance with secondary standards. All strategy projects were placed on compliance schedules in 1984 and 1985. These 1984 schedules were written into NPDES permits as they are renewed for each of the strategy projects.

By the July 1, 1988 deadline, DEQ is confident that two-thirds of the strategy projects will be in compliance either through improved operation and maintenance or construction. About twenty projects will still be out of compliance with secondary standards as the July 1, 1988 deadline passes, however. For these, more realistic new schedules for project completion have been prepared, with final construction completion dates set sometime in 1989. Many of these schedules are already incorporated into administrated orders.

Funding

Almost \$24 million has been spent in the two-year period represented by this update in federal, state, and local monies. This brings the total spent in Idaho from all sources in the thirteen-year history of the municipal construction grants program to about \$250 million. The state has spent nearly \$7 million on wastewater projects since 1985.

Starting in 1989 there will be a fundamental change in the type of state and federal funding available to Idaho communities for new and upgrade construction. Over the next two years, the construction grants program which has been the mainstay of wastewater financing since the mid-1970s in Idaho will be phased out. In its place a low interest revolving loan program will be instituted. This shift is mandated by the 1987 Amendments to the Clean Water Act. Idaho is making good progress toward implementing this new funding strategy.

Future Program Direction

Progress toward protecting public health and the environment through construction of municipal wastewater treatment facilities has been significant since 1985. Much remains to be done, however. The results of the 1986 federal/state Needs Survey show that many additional facilities will be needed in Idaho by the year 2005, to serve new population. Some upgrade of twenty-year-old facilities will also be needed. The survey also shows that nearly \$219 million will be needed to finance construction of these additional sewer facilities. This level of funding will require a substantial commitment from all the traditional sources - federal, state, and local.

A major challenge facing the Water Quality Bureau in the next two to three years will be directing a smooth transition from construction grant assistance to revolving loan assistance as mandated in the Amendments to the Clean Water Act. The transition calls for considerable legislative as well as administrative work if Idaho is to meet all program requirements of the federal amendments. Successful development of the revolving loan program will help assure approximately the same amount of money for future wastewater project loans as would be provided for grants. The 1987 legislature already made some changes to statutes critical to the transition.

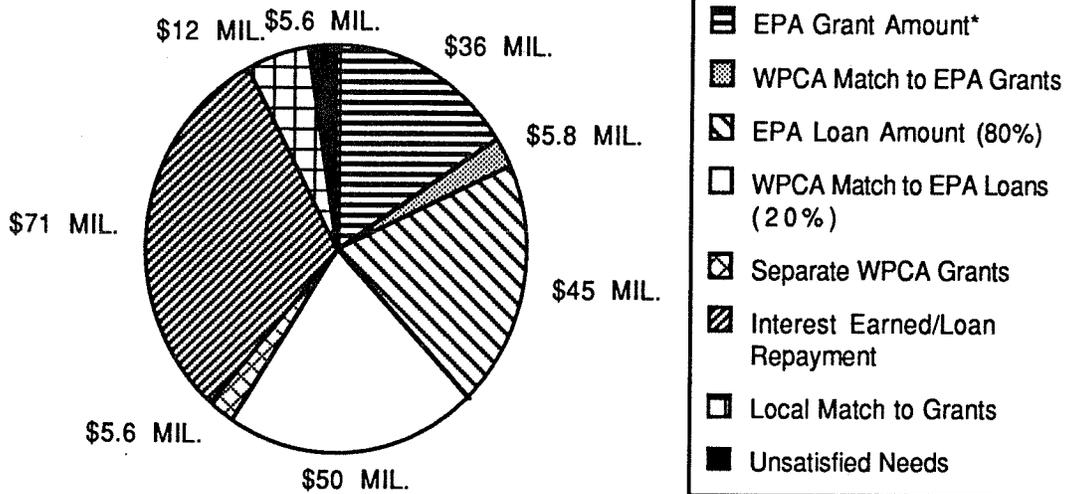
Legislation action in 1988 brought the state code further into alignment with the new federal program requirements. DEQ has also been making necessary preparations for the transition to loans through the development of regulations and policies. In this DEQ has had advisory help from an active ad hoc committee representing a diversity of interests statewide.

DEQ is now planning to fund loan projects for the first time during fiscal 1989 and a list of such projects is now being prepared. The last grant priority lists to be compiled will be in 1989.

Figures 45 and 46 contrast the future of wastewater construction financing with and without the proposed loan program. With a dwindling grants program (Figure 45), far more needs will be satisfied.

**FUNDING RESOURCES VS.
2005 CONSTRUCTION NEEDS**

Total Needs = \$219 Million



WITH LOAN ACCOUNT

*Assumes half are 55% Grants

Figure 45. Wastewater Construction Financing With Loans.

Another major task DEQ has to perform in the next couple of years is successful completion of a municipal strategy. DEQ must provide guidance and financial help to twenty small communities which still are not in compliance with secondary treatment standards. All twenty will overrun the July 1, 1988 deadline for universal compliance and, unless they conform to the extended schedules of recently issued administrative orders, many face enforcement action. Most of these projects will involve relatively simple upgrade construction to existing facilities to achieve compliance. All have experienced frustrating delays in completing needed improvements, but all have completed planning and construction completion is anticipated for the majority by the end of 1989.

FUNDING RESOURCES VS. 2005 CONSTRUCTION NEEDS

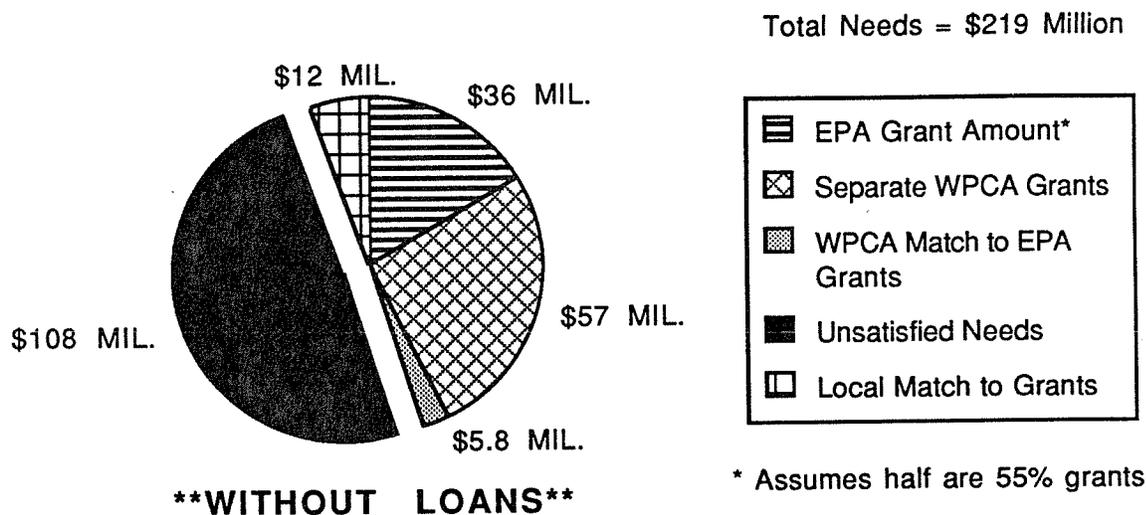


Figure 46. Wastewater Construction Financing Without Loans.

DEQ hopes to see construction completion on a number of projects where high quality water resources are under threat or severe public health problems exist. Important examples of projects in this category include:

1) Bellevue New Secondary Treatment Facility

Construction of collection and treatment facilities here will protect the local population from possible drinking water contamination by subsurface drainfield systems now in widespread use. Planning work is nearly done on this project.

2) Rathdrum New Secondary Facilities

Construction of collection and treatment facilities here will protect drinking water supplies in the underlying Rathdrum Prairie sole source aquifer.

3) Central Collection/Treatment at Island Park

Construction of facilities here will protect high quality ground and surface water resources. Much has been accomplished in the last two years at Pond's Lodge/Last Chance, but an additional interceptor is needed in the Mack's Inn area.

4) Roswell New Secondary

Construction here will remove one of Idaho's last raw discharges. Planning activities are nearly complete on this project.

5) Additional Work on Phased and Segmented Projects

Several segments of larger projects at Lewiston, Boise, and Coeur d'Alene will be finished by 1990.

Sewage Sludge Management

The goal of Idaho's sewage sludge management program is to prevent or minimize the potential adverse effects of sludge handling and disposal practices on surface and ground water quality and aesthetics.

Because of Idaho's low population density, the quantity of sewage sludge generated annually by municipalities has been relatively small, localized and, therefore, insignificant in comparison to other potential sources of pollution. Only twenty-nine mechanical wastewater treatment plants operate within the state, with most of these disposing of sludge onto farmland, at sanitary landfills or by giving it away to area residents for domestic horticultural use. Septic tanks are prevalent as evidenced by the existence of eighty state-licensed septage haulers in 1987. Septage disposal occurs at sewage treatment plants, on farmland, or at sanitary landfills. Problems most frequently encountered in conjunction with sewage sludge management include insufficient winter storage capacity and odor complaints.

Program Accomplishments

DEQ first formalized water quality protection requirements applicable to sewage sludge management in the 1980 revisions to the Idaho Water Quality Standards and Wastewater Treatment Requirements (Section 1-2650). The revisions provided 1) a requirement for Department approval of all sludge disposal plans; 2) protection of surface and ground water and public health as a general basis for plan approval; and 3) identification of required disposal plan elements. A technical water quality guidance document entitled Guidelines for Land Application of Municipal Sewage Sludge was completed by Division staff in June 1979 under a CWA Section 208 planning grant, just prior to the revised Standards taking effect.

Idaho's current sludge management program is an integrated program which involves coordination among all three Division of Environmental Quality bureaus: Water Quality, Hazardous Materials, and Air Quality. The program is based upon specific state and federal water quality regulations (Water Quality Standards and Wastewater Treatment, Section 1-2650 and CWA Section 405), the Division's technical guidance document, state and federal solid waste regulations which include provisions for air quality protection (RCRA-40 CFR Part 257 and Title 1, Chapter 6 Idaho Solid Waste Management Regulations and Standards, IDHW 1973), and state regulations regarding septic tank cleaning (Title 1, Chapter 15 Regulations Governing Cleaning of Septic Tanks, IDHW 1982).

DEQ and District Health Departments (DHDs) are the primary regulators of sewage sludge use and disposal activities in Idaho. DEQs management responsibilities include approval and oversight of sludge disposal plans for municipal wastewater treatment facilities and final approvals of landfill sites recommended by the DHDs to accept sewage sludge. In addition to making recommendations regarding DEQ approval of landfill sludge disposal sites, the DHDs are responsible for licensing septage pumpers and haulers, a process which includes DHD approval of transfer/transport equipment and intended disposal sites (landfills or private land).

Future Program Direction

The current level of effort expended by the Division towards sludge management is expected to be maintained over the next few years. Due to constricting state resources and the existence of higher priority problems, it is doubtful that any substantive changes in Idaho's sludge management program will occur in response to new federal regulations. With the 1987 changes to the federal statute, DEQ expects regulation of most sludge disposal practices to be handled by EPA through NPDES permit requirements.

Lake Management

The goal of lake management is to minimize the detrimental influence of man's activities on lake water quality so that beneficial uses can be maintained for future enjoyment.

Idaho has over 1,300 freshwater lakes covering a total surface area of about 700,000 acres. These lakes vary from pristine high mountain lakes to urban lakes with extensive shoreline development.

Lake water quality is largely determined by shoreline and watershed land uses. All of these uses are potential sources of pollution. There are many examples where subsurface sewage disposal activities associated with recreational development are posing a threat to lake water quality. There are also situations where logging, mining, farming, and grazing in lake watersheds have degraded water quality. In most cases a combination of activities are influencing lake conditions.

Concern over the quality of Idaho lakes has increased in the last few years as many are showing visible signs of cultural eutrophication (accelerated aging). Problems have become especially apparent in northern Idaho. There has been a tremendous increase in development in the five northern counties in the last ten years, which no doubt has contributed to deterioration in lake water quality. The many lakes of northern Idaho are used by both Washington and Idaho residents. Spokane is the main population base served by area recreational lakes. The combination of watershed land use impacts and recent development impacts have pushed many north Idaho lakes to the threshold of visible degradation.

Program Accomplishments

There has been a great deal of progress in Idaho's Lake Management Program in the last two years. DEQ has continued the core program of: 1) helping new lake associations form; 2) conducting information and education activities; 3) providing technical assistance to lake groups on special projects; and 4) conducting lake monitoring. Beyond this basic program DEQ has: 1) competed successfully for federal Clean Lakes Program funding; 2) obtained funding for a congressionally mandated study of the Clark Fork/Pend Oreille drainage basin with Montana and Washington; 3) obtained funding to conduct the first state funded Clean Lakes study on Cascade Reservoir; 4) begun a Citizen Lake Monitoring Program; 5) begun ground truthing aerial infrared photography of selected north Idaho lakes; 6) improved cross program coordination for solving lake water quality problems; 7) obtained additional short term staff to help meet program needs; and 8) pursued ways of increasing funding options to solve lake problems. The details of these accomplishments are given below.

In 1987 Congress authorized five million dollars nationwide for the Federal Clean Lakes Program (Section 314). The U.S. Environmental Protection Agency revised the guidelines to enable funding for new Phase I Diagnostic/Feasibility Studies for the first time since 1983. Idaho prepared applications for Phase I projects on Winchester Lake, Hauser Lake and Lake Pend Oreille. Funding was approved for all three projects in August, 1987 and work is now underway.

A Phase II application for implementation was also submitted to complete work on Bear Lake which was begun in 1985. Although funding under the federal Clean Lakes Program was not approved, work to protect and restore Bear Lake continues through other sources of funding. The Bear Lake Preservation Project is a regional effort involving Idaho, Utah, and Wyoming. Idaho has supported this effort through funding Phase I and part of a Phase II Project under the federal Clean Lakes Program and through funding under Section 205(j) of the Water Quality Act.

Reauthorization of the Clean Water Act in February, 1987 brought hope for a revitalized Federal Clean Lakes Program. The Act authorized fifteen million, nationwide, for the program. Unfortunately, no money was appropriated by Congress for the program in the 1988 budget.

The Clean Water Act amendments of 1987 also contained language authorizing a comprehensive study of the pollution problems in the Clark Fork River/Lake Pend Oreille drainage basin. In Section 525 Congress directed the U.S. Environmental Protection Agency to conduct such a study which would involve Montana, Idaho, and Washington. Congress appropriated \$300,000 to complete the work. All three states have submitted grant applications for funding and will begin their respective portions of the study in 1988. The product of this comprehensive effort will be a joint report to Congress in 1990 on water quality conditions and sources of pollution in the Clark Fork/Pend Oreille drainage basin.

Idaho plans to use the results of the assessment work done with Montana and Washington in developing management alternatives under the Clean Lakes Program grant received earlier. The end product will be a lake management plan for Lake Pend Oreille that contains the most cost effective alternatives for solving pollution problems in the lake.

DEQ has continued to support local lake management efforts which forms the core of the state program. The Lake Management Guide was developed in cooperation with the Panhandle Health District in 1987. It is a self-help guide to lake management intended for use by laypersons. The report has been widely distributed and very well received by those interested in lake protection. It serves as DEQ's main public information and education reference for lake management.

An important recent accomplishment in the lakes program has been the beginning of a Citizen Lake Monitoring Program. The North Idaho Lake Association Coalition (NILAC) expressed a desire to conduct monitoring as a follow up to citizen financed baseline studies. DEQ and NILAC pooled their resources and designed a Citizen Lake Monitoring Program. The district health departments have provided and encouraged support at the local level.

DEQ provides the annual training, quality control, laboratory analysis, and data interpretation and report preparation for the monitoring program. Each lake group provides the equipment and volunteers to collect and transport the samples to the laboratory.

The Citizen Lake Monitoring Program is a relatively low cost and efficient way of expanding our knowledge and understanding of lake water quality in Idaho. The objectives of the program are to: 1) address changes in lake conditions over time where baseline studies have been completed; 2) determine general lake conditions where no information has been previously collected; and

3) provide basic information necessary to determine if funding for lake restoration should be sought. Information collected through this program will also help the Bureau give a more complete and updated report on the status of Idaho lakes in the 1990 Water Quality Status Report.

In the last year work has also begun on ground truthing aerial infrared photography of shoreline areas of some north Idaho lakes. An aerial survey of seven Idaho lakes was completed by an EPA contractor in 1987 to identify local areas of increased productivity and determine the causes. On-site investigations of "hot spots" have been made on Cocollala Lake. The results of ground truthing the aerial photography will help determine the application and reliability of aerial photography for lake eutrophication assessments.

In 1988 Idaho began work on the first state funded Clean Lakes study on Cascade Reservoir. Public and agency concern over visible deterioration in water quality was drawn the attention of Idaho's Governor Cecil Andrus. A commitment was made by the Governor to obtain funds for the project since the federal program was not funded in 1988.

The Cascade Reservoir study will follow federal program guidelines to assure eligibility for future federal implementation funding. The Clean Lakes project is being carefully coordinated with a potential agricultural water quality study to eliminate any duplication of effort and to keep both projects on the same timeline to enhance future funding opportunities.

Progress has also been made in coordinating existing water pollution control programs with lake management activities. Two noteworthy examples are the Agricultural Water Quality Program and the Municipal Facilities Grant Program.

In 1987 an update of the agricultural stream segment priority list was begun. The growing concern for lake water quality resulted in a more thorough consideration of lakes impacted from agricultural activities in the prioritization process. Examples of lakes that could be included in the final priority list are Cascade Reservoir and Cocollala Lake. Lakes that rank high on the final priority list will have another funding option to pursue for reducing the pollution that is related to agricultural land use practices.

There have been several examples of cross program coordination to solve subsurface sewage disposal impacts on lakes or embayments. The most recent example is Hauser Lake. The City of Hauser was awarded a Municipal Facilities Planning grant to determine sewage treatment needs and alternatives. Extensive shoreline development has caused concern for possible water quality impacts from subsurface sewage disposal. This grant is being used as state match for a federal Phase I Clean Lakes Project that will assess lake conditions, determine other sources of impacts and come up with cost effective management alternatives for solving pollution problems. Idaho has recently been able to focus on treatment needs for recreational homes. This is a result of the progress made in addressing a majority of the primary residential sewage treatment needs.

Efforts to create alternatives for funding lake restoration have also been made at the legislative level. Bills authorizing formation of local lake restoration districts were proposed during the last two legislative sessions. Although unsuccessful, legislator awareness and understanding of the seriousness of lake water quality problems is being increased. A refined lake district bill may be introduced again during the 1989 session.

It has long been recognized that no single agency, organization, or citizen can address all lake water quality problems. This reality is responsible for the grass-roots lake management program that has come to be in Idaho today. Many creative ways have been sought to increase efforts to solve lake problems.

Future Program Direction

The recent progress in lake protection is largely a result of continued local concern and commitment, and DEQ's success in obtaining federal funding for several Clean Lakes Projects. What is clear from this progress, however, is the need for consistent base level funding to maintain the effectiveness of the lakes program. The lack of any federal Clean Lakes funding in 1988 illustrates the potential disastrous effect depending on sporadic competitive federal funding could have on Idaho's growing lakes program.

State funding must be sought to achieve a sustained lakes program. Additional permanent staff are needed to meet growing lake management demands, particularly in northern Idaho. The Bureau believes the grass-roots approach to lake management is crucial; and more lake associations are beginning to organize across the state. These groups need the guidance and assistance of professional staff in their efforts. More staff time is also needed to compete effectively for federal Clean Lakes Program funding.

Much of Idaho's effort to date has been on characterizing lake conditions and identifying sources of pollution. The visible deterioration of many lakes requires expansion of this focus to include lake restoration. Existing water pollution control programs such as municipal facilities construction and agricultural water quality are focusing more on solving lake problems. There are numerous other restoration alternatives that are appropriate but cannot be pursued without a source of funding. Lake restoration costs far exceed the cost of identifying the problems. Legislative action is needed to authorize and fund a lake restoration program if significant improvements in degraded lake water quality are to become a reality.

Water Quality Monitoring

Water quality monitoring is a support service to other program areas. The goal of water quality monitoring is to provide a data base on which informed management decisions regarding environmental protection and health can be made.

Prior to 1983 water quality monitoring by DEQ included ambient monitoring and intensive survey monitoring. Ambient monitoring involved long term monthly collection of water quality samples from major rivers and tributaries. This activity was dropped in 1983 to place more effort on intensive water quality surveys.

Water quality monitoring the last several years has been directed primarily at assessing water quality impacts from farming, mining and municipal wastewater, and determining the trophic status of lakes. Surveys support the Agricultural Water Quality Program by supplying information on the severity of water pollution and by helping pinpoint critical problem areas within the watershed. Water quality samples are collected around mine sites to assure pollutants are not entering waterways or to support enforcement actions where pollutants get into streams. Assessment of the impact of municipal wastewater treatment plants on streams provides water quality engineers the information needed to determine safe effluent limits for wastewater treatment plants. Monitoring lakes and their tributaries provides the lake owners and agencies the information they need to develop lake management strategies which will protect and restore these important resources.

Program Accomplishments

Surveys which have been completed by DEQ since the 1986 Water Quality Status Report are listed below:

Completed Surveys

Pine Creek, Nez Perce County. 1986. Report No. 62

Billingsley Creek, Gooding County. 1986 Report No. 64

Lapwai/Mission Creek, Lewis County. 1986. Report No. 65

Stockney Creek, Latah County. 1986. Report No. 67

Palouse River, Latah County. 1986. Report No. 67

Jim Ford Creek, Clearwater County. 1987. Report No. 68

Water Quality Trend Monitoring from 1979-1985 in the Stibnite Mining District, Valley County. 1987. Report No. 70

Conant Creek, Fremont Count. 1987. Report No. 71

Lower Portneuf River, Bannock County. 1987. Report No. 72. Agricultural runoff.

Perrine Coulee, Twin Falls County. 1987. Report No. 73

Big Elk Creek, Idaho County. 1987. Report No. 74. Effluent limitation study

Santa Creek, Benewah County. 1988. Report No. 75. Effluent limitation study

Little Potlatch Creek, Latah County. 1987. Report No. 76. Agricultural runoff

Canyon Creek, Madison and Teton County. 1987. Report No. 78. Agricultural runoff

Crooked River, Idaho County. 1987. Report No. 80

DEQ has ten intensive surveys in progress and fourteen new surveys planned to begin in 1988.

Personal computers are being used to enhance the accessibility of EPA's STORET system for water quality data storage. In addition, entering data in STORET by way of personal computers has reduced the error rate of information in the national computers.

In September 1985 DEQ developed a procedure for coordinating water quality intensive surveys. Intensive surveys require a large resource commitment from both DEQ and the Bureau of Laboratories. The procedure has improved administration of the program to assure that water quality monitoring is conducted in a scientifically valid manner and that quality assurance needs and study design objectives are met.

Monitoring Programs with Other Agencies

DEQ has worked on a number of cooperative monitoring programs with other agencies. DEQ provides assistance on laboratory analyses, study plan development, and data storage. The cooperating agency collects the samples and sends them to the Bureau of Laboratories. This has been a positive arrangement for both agencies, and allows DEQ to maintain surveillance over important activities which would not otherwise be monitored. Cooperative monitoring programs have been developed with the Payette National Forest (NF) to measure the impact of several large mines and with the Panhandle NF to determine the effect of timber harvest on lake quality.

Since 1986, U.S. Bureau of Reclamation has monitored a network of stations on the Boise and Payette Rivers which has been cooperatively financed by EPA. DEQ became involved in 1987 and helped finance an expanded network to include more stations in the Central Snake River basin. Monitoring results are analyzed for trends in water quality.

A cooperative agreement with the U.S. Geological Survey (USGS) on the Clark Fork River has been in place since 1984. The purpose of the monitoring network is to quantify the effects of the Clark Fork River on water quality and trophic conditions in Lake Pend Oreille. The USGS also maintains the National Ambient Surface Water Quality Ambient Network (NASQUAN) for determining national trends in water quality. Six stations are maintained in Idaho. The DEQ uses the data to compute the Water Quality Index for analysis of trends. Currently, very few other agencies are conducting ongoing water chemistry sampling that involves more than one or two parameters.

Future Program Direction

Monitoring is a resource intensive operation. DEQ is able to sample only a small percentage of the many potential sources of pollution throughout the state. Additional resources are needed to continue to determine the nonpoint sources of pollution and the effectiveness of the management programs.

With existing funding levels, intensive surveys will continue to form the backbone of the monitoring program. Information on trends in water quality, however, is an important need that is not satisfied by intensive surveys. Information on trends is the basic source data for the Water Quality Profile required under Section 305(b) of the Clean Water Act. Since the trend stations were dropped in 1983 this data has not been available. DEQ is considering initiating trend sampling collection for a period of a year (water year 1989) so that quantitative data is available for the 1990 Water Quality Status Report.

The short range direction for this program is to continue intensive surveys at the current level. Emphasis will be on appropriate survey design that efficiently meets the immediate information needs of the various programs. To accomplish this objective it will be important for DEQ to keep staff up-to-date through training programs, to provide staff with modern tools such as personal computers and digital monitoring equipment, and to incorporate quality assurance procedures into all monitoring activities.

Significant interest in increasing monitoring capabilities has been generated due to the requirements of Section 319 and a recent agreement regarding an antidegradation policy and implementation plan. DEQ is working to design and implement a monitoring network which will provide more information on drainages of concern, and which will implement the feedback loop concept of nonpoint source pollution management. A substantial commitment of state funds will be necessary for this effort to succeed.

Water Quality Standards

The overall goal of Idaho's Water Quality Standards is to maintain and enhance the quality of waters of the state as necessary to preserve beneficial uses and protect public health. This goal is based on the Idaho Environmental Protection & Health Act as well as the U.S. Clean Water Act.

The three interrelated and continuing functions served by the standards program include identification and refinement of 1) beneficial use criteria; 2) beneficial uses of particular waters of the state (designated uses); and 3) wastewater treatment requirements for various facilities and activities, such that water quality criteria and associated beneficial uses of all waters of the state are maintained.

The information necessary to refine the standards generally includes use criteria, use designations, and wastewater treatment requirements. This information is derived mainly from: EPA funded research, field observation and monitoring data collected by U.S. Geological Survey (USGS), Idaho Department of Water Resources (IDWR), DEQ, and planning documents of other state resource management agencies (Departments of Fish & Game, Lands, Water Resources, and Transportation).

The first Idaho water quality standards were adopted in 1959 by the Board of Health. The 1959 standards consisted of one full page which included only a preamble and three regulatory provisions. In 1967, the standards were expanded and split into two separate sets of rules and regulations; one set of quality standards for interstate waters addressing disposal of sewage and industrial wastes into such waters, and another set of quality standards for "waters of the state" including wastewater treatment requirements. The first federal mandate requiring states to establish water quality "standards" was set forth in the Clean Water Act of 1972. Since that mandate, the Idaho Water Quality Standards and Wastewater Treatment Requirements (IWQS & WWTR) have undergone three comprehensive revisions (in 1973, 1980, and 1985) and three special-issue revisions resulting from public petitions. The special issues addressed by petition included geothermal discharges to the Boise River (1982), nonpoint source control requirements (1983), and dissolved oxygen criteria (1986).

Program Accomplishments

Several water quality standards issues have been addressed in the last two years. This includes revision of ammonia standards, nonpoint source standards, and antidegradation policy. On-going efforts include development of sediment criteria, groundwater standards and regulations for implementing the antidegradation policy.

Ammonia Standards

Ammonia standards were revised for the protection of warm water biota, cold water biota and salmonid spawning. The U.S. EPA proposed promulgation of a new ammonia standard for Idaho in the fall 1985. The state revised the ammonia standard to avoid EPA promulgation of a very complex set of federal criteria. The standard specifies maximum allowable concentrations of total ammonia based on water temperature and pH. These standards were adopted in March 1987.

Nonpoint Source Standards

During the 1986 legislative session, efforts were made to revise the water quality standards. The legislature passed House Bill 711 which would have transferred the authority for determining water quality impacts related to forestry from IDHW to IDL. It also would have changed the existing definition of serious injury to presume that use of BMPs would comply with water quality standards. The bill was vetoed by Governor Evans who directed IDHW and IDL to establish an interagency working group to resolve the interpretation of water quality standards for nonpoint source impacts.

The Nonpoint Source Interagency Team formed as a result of the Governor's direction was composed of four members from IDHW and IDL, with ad hoc members from other resource agencies, forestry, agriculture, mining, environmental and recreational interests, and the Nez Perce Indian Tribe. Following considerable discussion the interagency team developed three alternatives which were presented at six public workshops. Based on input from the workshops, portions of the alternatives were combined into a consensus proposal called the feedback loop. The consensus proposal did not include a resolution of the antidegradation policy.

The water quality standards were revised in March 1987 to implement concepts embodied in the feedback loop. The feedback loop describes a process of nonpoint source pollution management based on implementation of BMPs. BMPs are identified through a planning process and applied by land managers. The effectiveness of the BMPs in protecting water quality is evaluated through instream water quality monitoring. The data is then evaluated against instream criteria developed to protect the beneficial uses of water. Criteria for sediment are an important component of this system for nonpoint source activities. Efforts to develop sediment criteria are described below.

Sediment Criteria

The EPA initiated development of sediment criteria by commissioning a consultant to prepare a review of the literature regarding criteria for fine sediment. The review was issued in final draft in August 1987.

Sediment criteria development by IDHW-DEQ began in September 1987. The approach to developing criteria was divided into two phases. The first phase is designed to develop an array of technically valid sediment criteria. The policy phase is designed to gain public input and modification of the criteria based on technical feasibility and social and economic concerns.

The technical phase was begun with a review of the key literature cited by EPA's consultant, reviewing papers from a wider search of the literature and meeting with several technical experts. From this body of information five draft sediment criteria, complete with justification based on the literature, were developed.

These draft criteria were a starting point for discussion with a technical work group in December 1987. Participants were from the fields of agriculture, fisheries biology, forestry, hydrology, limnology, and water quality. The technical experts were drawn from land management agencies, regulatory agencies, universities, and private industry. As a result of the workshop the participants rejected three criteria, accepted one and revised another. They also identified knowledge gaps where additional research is needed to develop useable criteria.

The initial sediment criteria were revised in accordance with the work group input and returned for a second review. The criteria were revised again based on the comment received

and have been distributed to a wider list of technical experts across the Pacific Northwest. Draft sediment criteria will be developed and forwarded to a Water Quality Policy Advisory Committee for their review and input prior to adoption through the Administrative Procedures Act in 1989.

Antidegradation

The State of Idaho has been actively pursuing adoption of an antidegradation policy since 1985. A negotiating committee formed by Governor Cecil Andrus has recently developed an Agreement in Principle To Implement An Antidegradation Policy For the State of Idaho (August, 1988). The agreement was reached through a consensus process which included key representatives from industry, conservationists, and Indian tribes. This agreement will be implemented in 1989 by state agencies and the Idaho legislature through adoption of legislation, rules, and regulations. The following information provides a synopsis of the efforts to develop an acceptable antidegradation policy and implementing rules.

In 1983 EPA adopted regulations requiring all states to incorporate an antidegradation policy in the water quality standards to meet the requirements of the U.S. Clean Water Act. The fundamental requirement of the policy is to maintain high quality waters at a level which fully protects the existing beneficial uses.

In 1985, EPA notified Idaho that the state water quality standards did not meet the antidegradation policy requirements. Under the Clean Water Act, if a state does not develop an acceptable standard, EPA is required to establish a federal standard. The 1987 legislature passed a concurrent resolution directing IDL and IDHW to present a solution to the legislature by February 1988 so that the policy could be incorporated into state law during the 1988 session.

Based on several months of discussion and negotiation with ad hoc members of the NPS Team and legislative representatives, IDHW and IDL developed a proposed approach to implementation of the policy. In July 1987, six public workshops were held across the state to explain the proposal and get public input prior to official public hearings. The workshops were well attended and a large volume of comments were received on the proposal as well as to request a change in specific stream classifications.

In September 1987, EPA released additional guidance on nonpoint source pollution control. This guidance changed several assumptions that the Bureau was working under in complying with the antidegradation policy. Based on advice from the legislative policy advisors, the Bureau substantially revised the stream classification system and developed formal rules and issued formal notice of public hearings to be held in November. In the interim Governor Cecil Andrus and the Idaho Senate majority leadership formed a team composed of representatives from industry and environmental groups to attempt to reach a consensus on the Bureau proposal. As a consequence the public hearings on the antidegradation rules were canceled. Meanwhile, a coalition of conservation groups filed suit against EPA for failure to promulgate a standard.

The team formed by the Governor was unable to reach a consensus and no recommendations on an antidegradation policy was generated by this group in 1987. As a separate activity the industry representatives to the committee developed a bill, House Bill No. 652, that was submitted in the 1988 legislative session. This bill would have incorporated the federal antidegradation policy into Idaho Code and essentially recognized the existing feedback loop process as implementing the intent of the policy. The bill also authorized the Board of Health and Welfare to nominate specific high quality waters as outstanding resource waters. The bill was vetoed by the Governor. He instead directed the negotiating team to develop an antidegradation plan by October

1, 1988. The negotiating team completed an agreement in principle in August, 1988. The conservation group coalition agreed to stay their suit against EPA during that period.

Enabling legislation to implement the antidegradation agreement has been prepared and will proceed through the legislative process in 1989. The necessary rules and regulations to implement the agreement have been prepared by the respective resource management agencies and will go through formal adoption immediately after the legislation is passed. Implementation of the agreement is scheduled for spring, 1989.

The antidegradation agreement contains two major directives for DEQ. The first is to identify stream segments of concern through a public process. The second directive is to implement a monitoring program to evaluate water quality conditions and BMP effectiveness.

Nonpoint source activities have already been identified as the major source of impact to state surface waters, and sediment has been identified as a primary pollutant of concern. The antidegradation monitoring program will emphasize evaluation of sediment impacts from nonpoint source activities. The methodologies identified through work to develop sediment criteria will be incorporated into the monitoring program design where appropriate.

Toxics

Management of toxic water pollutants is not addressed by the state in a single unified program. Toxics associated with point source discharges are addressed by the NPDES program, administered in Idaho by the EPA. Management of toxic herbicides and pesticides is addressed by the Agricultural Pollution Abatement Plan. Some impacts of certain mining facilities utilizing cyanide leaching operations are addressed by the Rules and Regulations for Ore Processing by Cyanidation. Nonpoint source mining impacts which produce toxic heavy metals and are primarily the result of historic mining activities, and are not currently addressed by a state management plan.

Future Program Direction

The standards for surface water will continue to be reviewed and revised every three years as required by Section 303 of the 1977 federal Clean Water Act. Priority for future action is based on resolution of several major issues relating to interpretation of the Clean Water Act.

Resolution of the nonpoint source sections of the standards needs to be accomplished. The nonpoint source standards adopted in March 1987 have not yet been approved by EPA. The antidegradation policy and implementation procedures will need to be adopted and approved by EPA. Lastly, sediment criteria need to be adopted to complete the feedback loop concept incorporated into the nonpoint source standards.

Several specific areas need to be evaluated for inclusion in state water quality standards such as riparian and wetland values, toxic criteria and nutrient standards. A reevaluation of segment designations and protected beneficial uses also needs to be performed.

GROUNDWATER QUALITY MANAGEMENT

The Division of Environmental Quality, Water Quality Bureau is the lead state agency charged with managing the quality of Idaho's groundwater. In September 1983, DEQ published the state's first comprehensive Groundwater Quality Management Plan (Martin, 1983). The plan was subsequently updated in 1985 (IDHW, 1985b) and is presently being updated again to

reflect program accomplishments and new goals (IDHW, in preparation). Because groundwater supplies over 90% of the state's drinking water and a large portion of the irrigation and industrial water needs, the focus of the groundwater program is on protection of this important resource for these beneficial uses.

Groundwater Quality Policy and Standards

Central to DEQ's program to protect groundwater quality are the proposed groundwater policy and standards. These proposed standards build upon the existing water quality standards which are presently applicable to groundwater. The proposed standards set a uniform approach for the source-specific portions of the management program. Public hearings on the groundwater policy and standards were held in November 1987. In response to a recommendation by the hearing officer, an advisory committee consisting of interested industries, agencies, and legislators has been formed to assist DEQ in finalizing the standards.

In addition, the Idaho Legislature passed Senate Concurrent Resolution 129 in March 1988 creating the Interim Legislative Committee on Groundwater Quality. DEQ is cooperating with this committee with regard to the standards and the need for legislation.

The groundwater policy originally proposed is based on aquifer classification and differential protection in accordance with groundwater standards. The draft standards define three levels of groundwater quality protection. The standards are designed to permit only limited degradation of groundwater quality, and, in the case of drinking water supplies, include limits which trigger preventive action before standards are exceeded. A more stringent classification, Special Resource Groundwater, is proposed for particularly vulnerable aquifers such as the Rathdrum Prairie.

Regulation of Potential Contaminant Sources

As was mentioned previously, the potential contaminant sources or land use practices of greatest concern have been ranked in terms of risk and regulatory programs. Based on this ranking, the following regulatory programs are either in place or are being drafted or improved to address the sources of highest priority.

Underground Storage Tanks

Idaho is participating in a nationwide program to register all underground storage tanks. Information on tank age, location, and corrosion protection is being provided. This data base is being used to assess the risk associated with undetected leaks in these underground tanks. New federal regulations requiring corrosion protection, leak detection and pollution insurance were promulgated by EPA in September 1988. DEQ has formed an advisory committee of interested industries and agencies to assist in tailoring this federal program to Idaho's tank population. Compliance assistance programs such as loans or grants for tank owners are being considered to help ease the financial impact of the federal regulations.

Septic Systems

In 1985, Idaho adopted new state-of-the-art regulations for septic systems. At the same time an extensive set of guidelines, The Technical Guidance Manual for Individual and Subsurface Sewage Disposal, was developed (IDHW, 1985c). The two documents provide detailed criteria for the siting, design, use, and maintenance of septic systems.

Through a Memorandum of Understanding, enforcement of these regulations is carried out by the seven district health departments. Program coordination and technical assistance are

provided to the districts by DEQ. The septic system program is capable of responding to changing technologies and difficulties encountered in the field because a Technical Advisory Committee consisting of six professionals meets periodically to resolve program issues. The guidance manual is continually being updated by the committee.

A key aspect contributing to the success of this program is the ongoing soils training that is provided to District staff working in the field. This training promotes siting and design of systems that are suited for the specific soils conditions encountered at each site.

Septic system management also extends into local planning and zoning. In Minidoka County, septic systems are prohibited in new subdivisions over the Snake Plain aquifer. Southwest Boise and the Panhandle Health District limit septic systems to lots which are at least 5 acres. In the case of the Panhandle Health District, the 5 acre limitation is implemented via sewage management agreements which are contracts negotiated with municipalities to protect the quality of the Rathdrum Prairie aquifer.

Land Application of Industrial and Municipal Wastewater

New regulations including a permit system went into effect in April 1988. The regulations and associated guidance address siting and wastewater application in accordance with soil conditions. Groundwater monitoring requirements are also included.

Feedlots and Dairies

A new federal permit system for confined animal feeding operations is now in place. DEQ has developed guidance describing management practices for mitigating the impact of these facilities on both surface and groundwater. However, consideration of groundwater in this program is minimal and should be expanded in the future.

Landfills

Federal regulatory programs for solid waste are being updated to reflect groundwater protection. EPA proposed new regulations for landfills under Subtitle D of RCRA in August 1988. The proposed regulations require groundwater monitoring for an expanded list of contaminants, improved practices for final closure of existing landfills, and mandate that operators provide financial assurance of their capability to deal with adverse impacts. The regulations are expected to be finalized in 1989 and to go into effect in 1990. A Solid Waste Advisory Committee has been formed by the Idaho Hazardous Materials Bureau to assist the state in upgrading its regulatory program.

Injection Wells

The Idaho Department of Water Resources has responsibility for regulating injection wells. An injection well is a well through which wastewater such as storm water or irrigation tail water is disposed in the subsurface. IDWR revised their regulations in 1984 and received state program approval from EPA in 1985. The state regulations include distancing requirements from water supply wells, effluent quality standards, and periodic inspections.

During the last two years, IDWR conducted two intensive surveys of injection wells near Gooding and Idaho Falls. These areas were selected because of the intensive use of agricultural drainage wells in the vicinity of domestic water supplies. No impact on the water supplies was detected. IDWR is now expanding these studies to investigate the potential for groundwater impacts over an extended period of time. A long-term trend analysis study is being initiated on

the Snake Plain aquifer. The trend study will focus on areas of high densities of urban and agricultural drainage wells.
Hazardous Materials

The transportation, storage, and disposal of hazardous materials can pose a threat to groundwater if these activities are conducted inappropriately or if spills or accidents occur. The Idaho Hazardous Materials Bureau has authority for regulating hazardous wastes. In 1983, the Idaho Hazardous Waste Management Act was passed, improving the Bureau's ability to prevent groundwater impacts and expanding its authorities for remediation of existing contamination. To promote long-term planning, a state Hazardous Waste Management Plan was developed by the Idaho Hazardous Waste Planning Committee (IHWPC, 1987). Among other things, the plan requires that hazardous waste disposal facilities be sited in locations where the risk of groundwater contamination is minimal. Siting criteria included in the plan include such factors as depth to groundwater and distance from water supply wells.

Special Aquifer Protection Strategies

The regulatory programs described above are generally uniformly applicable throughout the state. However, aquifers differ in their sensitivity to contamination, and land uses vary considerably within the state. To address the unique characteristics of individual aquifers and the interests of citizens using those water supplies, a series of special aquifer protection strategies has been developed.

Snake Plain Aquifer

This aquifer is ranked as the second most vulnerable aquifer in Idaho. It is the sole source of drinking water for over 225,000 Idaho citizens. A major evaluation of the aquifer's hydrogeology and potential for contamination was completed by DEQ (IDHW and IDWR, 1985) and a strategy was developed to protect the groundwater quality (IDHW, 1986). DEQ is being assisted in the implementation of the strategy by an advisory committee composed of citizens groups and interested agencies. Key areas of emphasis are the control of contaminant sources, special monitoring studies and the development of local groundwater protection programs.

Rathdrum Prairie Aquifer

This aquifer was ranked third in terms of statewide vulnerability. It was also the second aquifer in the nation to be designated by EPA as a Sole Source Aquifer, a federal designation authorized under the Safe Drinking Water Act. The Rathdrum Prairie aquifer is the sole source of drinking water for over 55,000 people in Idaho. 250,000 people in Washington also depend on it for drinking water supplies. A technical evaluation of the local hydrogeology and potential sources of contamination was recently completed in cooperation with the Panhandle District Health Department (Jehn, 1988). Federal funding has been received for implementation of a broad program to prevent contamination and to monitor for long-term trends in aquifer quality.

Other high priority aquifers, such as the Boise Valley aquifer and the Lewiston Basin aquifer (a recently designated Sole Source Aquifer) have no specific management plans at the current time. This is a recommended activity addressed in Idaho's comprehensive groundwater management plan. Of particular concern is the Lewiston Basin aquifer which was recently designated by EPA as a sole source aquifer under the Safe Drinking Water Act.

Technical Support Groundwater Programs

A staff hydrogeologist and soil scientist provide technical assistance to DEQ field offices and the district health departments. Assistance is provided on investigation of contamination, designing and conducting remedial actions, special studies and monitoring programs.

Public Information and Program Coordination

DEQ coordinates all groundwater management activities within the state. This has included the publishing of a directory of all of those involved in such activities, working with various state and federal agencies on specific groundwater management plans and continued education of the public and interested agencies on groundwater quality issues. A key element in this area is the promotion of local groundwater programs. To assist in this effort, a groundwater protection manual has been prepared for local officials and citizens (Jehn, in press). To promote coordination among the wide variety of interest groups and agencies involved in groundwater issues, DEQ relies heavily on advisory committees. At present, DEQ is coordinating six different committees which have been formed to provide input on groundwater program development and to assist in effective implementation of regulations. These committees provide a vital link to the regulated public and interested citizens.

Groundwater Vulnerability Mapping

The potential for groundwater contamination from contaminants released at the land's surface varies widely throughout the state. In some areas, shallow groundwater and very porous soils result in aquifers that are very vulnerable to contamination. In other locations, greater depth to the saturated zone and impermeable or thick soil layers make the possibility of impacts remote. A better understanding of these factors is necessary to encourage land uses that are compatible with the need to protect the underlying drinking water supplies.

To address this need, DEQ has begun a cooperative groundwater vulnerability mapping project with the Idaho Department of Water Resources and the U.S. Geological Survey with assistance from the Soil Conservation Service. Data on depth to water, soils, recharge and topography are being assembled using IDWR's computerized geographic information system. Relative vulnerability is calculated using a modified version of the National Water Well Association's DRASTIC methodology. DRASTIC is an equation which uses hydrogeologic data to calculate a numerical value for relative vulnerability (Aller, et al., 1985). These values are then plotted on maps (see Figure 4 on page 17). So far, these efforts are in progress on the Snake Plain Aquifer. When completed, the maps can assist in making land use decisions such as siting of landfills, determining rates of application for land disposal of industrial wastewater, or the potential for groundwater impacts from a leaking underground tank.

Groundwater Monitoring

The magnitude of impact of most potential sources of groundwater contaminants is poorly defined in Idaho because monitoring data are very limited. Data on organic contaminants and pesticides are virtually nonexistent. Statewide monitoring efforts have been proposed since 1979 when a risk-based monitoring network was designed for the state by USGS. However, lack of funding has prevented the monitoring from being done. Increased monitoring is a very high priority for the state's groundwater program.

In lieu of statewide monitoring, DEQ has conducted special monitoring studies in localized areas. Recent studies have been done near Blackfoot (Parlman, 1987b), in Cassia County (Young et al., 1987a), Twin Falls County (Parlman and Young, 1987), and Minidoka County (Young et al., 1987b). Although of limited extent and duration, studies such as these provide important data for assessing ambient quality.

The Panhandle District Health Department has been monitoring a limited number of wells on a quarterly basis in the Rathdrum Prairie aquifer for ten years. New federal funding has been received so that this network can be expanded to include additional wells and analyses for additional water quality parameters.

Future Program Direction

The state's groundwater program has rapidly expanded over the past several years due to increased awareness of the importance of this resource in Idaho and in response to new federal mandates. The program extends beyond the Water Quality Bureau in DEQ and includes such agencies as the Department of Agriculture (pesticides), State Fire Marshal (underground storage tanks), Department of Water Resources (underground injection control), the U.S. Geological Survey (groundwater monitoring), and the Hazardous Materials Bureau (solid and hazardous wastes). The following list of future program directions is a brief summary. Additional information can be found in the 1988 edition of the state's Groundwater Quality Management Plan (IDHW, in preparation).

1) Complete the Groundwater Vulnerability Mapping for the Entire State

Mapping is currently underway for the Snake Plain aquifer. This important tool is needed for other aquifers such as the Rathdrum Prairie and the Boise Valley. DEQ's long-range goal is to complete this mapping for the entire state.

2) Develop Local Government and Citizen Participation in Groundwater Protection

Groundwater planning and protection are integrally tied to land use. Therefore, local participation is crucial for a successful groundwater program. Funds need to be provided by the Legislature to assist cities and counties in developing programs to prevent groundwater impacts.

3) Increase Groundwater Monitoring

Additional sampling is needed to determine if impacts are occurring. Data on the occurrence of organic chemicals such as pesticides and industrial products are needed. Lastly, repeated sampling is crucial to determine seasonal cycles and long-term trends. Funds need to be provided by the Legislature to support this work on an ongoing basis.

4) Develop a Program to Address Agricultural Impacts on Groundwater Quality

The U.S. Environmental Protection Agency recently proposed a strategy for agricultural chemicals in groundwater that places the major responsibility in this area with the states (EPA, 1987). A cooperative approach involving DEQ, the Idaho Department of Agriculture, the University of Idaho Cooperative Extension Service, the Idaho Soil Conservation Commission, the Idaho Department of Water Resources, the Soil Conservation Service, growers, and agricultural chemical registrants is being developed to address this issue.

Monitoring data is needed to determine whether impacts are occurring. Technical assistance on best management practices is required to allow growers to operate profitably and in a manner that safeguards drinking water supplies.

5) **Develop Special Aquifer Protection Strategies for Other High Priority Aquifers**

Special aquifer strategies have already been developed for the Snake Plain and Rathdrum Prairie aquifers. Strategies are necessary for other highly vulnerable aquifers such as the Boise Valley aquifer.

6) **Develop a Groundwater Monitoring Program for Septic Systems**

A groundwater monitoring program is needed in areas with a high density of septic systems and large community systems. The monitoring program will identify problem areas and allow modifications before extensive contamination can occur.

NONPOINT SOURCE ASSESSMENT SUMMARY

The introduction to this report stated that its purpose was to provide an assessment of the water quality of rivers, lakes and groundwater in the State of Idaho, that are being impacted by nonpoint, point, and toxic pollutants. The report is intended to satisfy the requirements of Sections 319, 305(b), 304(l), and 314 of the federal Water Quality Act. It will also serve as management tool for targeting priority waters and implementing pollution control strategies.

Nonpoint source activities have been reported here to be significant contributors to surface and groundwater pollution in Idaho. An immediate use of the information compiled here will be to complete the Nonpoint Source Management Program required under Section 319 of the federal Water Quality Act. The Water Quality Bureau will be completing this task with the help of the Nonpoint Source Technical Advisory Committee.

Completing the Nonpoint Source Management Program will involve identification of existing programs; available BMPs for solving problems; agency authorities to take action; and funding sources to pay for correcting pollution problems. This information will be compared to the major findings of this report which will show where deficiencies in nonpoint source pollution control exist. The combined information will be used to prepare a 5-year work plan for developing and implementing the additional nonpoint source pollution controls needed to protect Idaho surface and groundwaters.

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APPENDIX A

This list contains the stream segments, lakes, and reservoirs which were assessed as not fully supporting a beneficial use. This is shown by a rating of "N" (not supported, see Glossary in the Assessment Report) or "P" (partially supported). If a rating of "S/T" appears on the list, it means that the beneficial use is supported but is 'potentially at risk' (see Glossary). Of the water bodies assessed, only those segments with at least one beneficial use partially or not supported were included. Additional uses may be potentially at risk. The list contains the following information: stream segment number, name, and identifying boundary description, who submitted the information, sources of impact from nonpoint source pollution categories and subcategories, the magnitude of the impact, the pollutant resulting from the nonpoint source activity, the magnitude of the pollutant, whether the information submitted is based on monitored or evaluated data or both, and the status of beneficial use support. A list of NPS pollution categories and subcategories is included on pages A-2 and A-3. Beneficial uses which are specifically designated in the State Water Quality Standards or actually exist on streams not specifically designated and are fully supported are indicated with an "X".

Acronyms which were used to identify agencies which submitted information are identified here:

Shown in Appendix	Represents
BLM	U.S. Bureau of Land Management
EPA	Environmental Protection Agency
IDFG	Idaho Department of Fish and Game
HVCA	Hagerman Valley Citizens Alert
NP Tribe	Nez Perce Tribe
IDL	Idaho Department of Lands
SOC	Soil Conservation Commission
SCD	Soil Conservation District
SCS	Soil Conservation Service
USFS	U.S. Forest Service
BFO-DEQ	Boise Field Office-Division of Environmental Quality
CFO-DEQ	Coeur d'Alene Field Office-Division of Environmental Quality
LFO-DEQ	Lewiston Field Office-Division of Environmental Quality
PFO-DEQ	Pocatello Field Office-Division of Environmental Quality
TFO-DEQ	Twin Falls Field Office-Division of Environmental Quality
DEQ	Central Office-Division of Environmental Quality

If there is no entry under the category "Submitted By" then the information was provided by the Central Office of DEQ.

Major Nonpoint Source Pollution Categories and Subcategories

The following codes for the major nonpoint source pollution categories and subcategories were used to assess Idaho's streams, lakes and wetlands. These codes are based on U. S. EPA Guidelines for the Preparation of the 1988 State Water Quality Assessment (305(b)) Report, April 1, 1987, p. 19.

10 Agriculture

- 11: Non-irrigated crop production
- 12: Irrigated crop production
- 13: Specialty crop production (truck farming, orchards, etc.)
- 14: Pastureland treatment
- 15: Rangeland
- 16: Feedlots - all types
- 17: Aquaculture
- 18: Animal holding/management areas

20 Forest Practices

- 21: Harvesting, reforestation, residue management
- 22: Forest management
- 23: Road construction/maintenance

30 Construction

- 31: Highway/road/bridge
- 32: Land development

40 Urban Runoff

- 41: Storm sewers
- 42: Combined sewers
- 43: Surface runoff

50 Resource Extraction/Exploration/Development

- 51: Surface mining
- 52: Subsurface mining
- 53: Placer mining
- 54: Dredge mining
- 55: Petroleum activities
- 56: Mill tailings
- 57: Mine tailings

60 Land Disposal

- 61: Sludge
- 62: Wastewater
- 63: Landfills
- 64: Industrial land
- 65: On-site wastewater systems (septic tanks, etc.)
- 66: Hazardous wastes

70 Hydrologic/Habitat Modification

- 71: Channelization
- 72: Dredging
- 73: Dam construction
- 74: Flow regulation/modification
- 75: Bridge construction
- 76: Removal of riparian vegetation
- 77: Streambank modification/destabilization

80 Other

- 81: Atmosphere deposition
- 82: Waste storage/storage tank leaks
- 83: Highway maintenance and runoff
- 84: Spills
- 85: In-place contaminants
- 86: Natural
- 87: Recreation

90 Source Unknown

Primary Pollutant Codes

- A. nutrients, including nitrate
- B. pH
- C. siltation/sedimentation
- D. organic enrichment/DO
- E. salinity
- F. thermal modification
- G. flow alteration
- H. other habitat alterations
- I. pathogens (bacteria)

- J. radiation
- K. oil and grease
- L. unknown toxicity
- M. pesticides
- N. synthetic organics
- O. metals
- P. ammonia
- Q. chlorine
- R. other

APPENDIX A BB SEG #	WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE		SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES			AGRI			COLD			WARM			SALM			PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	PNRS #	NAME						BOUNDARIES	WATER SUPPLY																
10	253.00	BEAR R	WARDBORO to ALEXANDER RES		11	M	C																		
	253.00	BEAR R	WARDBORO to ALEXANDER RES	IDFG	12	L	C																		
					14	M	A																		
					18	M	A																		
					77	M	C																		
	273.00	BEAR R	WARDBORO to ALEXANDER RES	IDFG	11	H	C																		
					12	M	C																		
					14	M	C																		
					74	H	C																		
	273.00	BEAR R	WARDBORO to ALEXANDER RES	IDFG	11	M	C																		
					14	M	A																		
					15	M	A																		
					77	L																			
	273.00	BEAR R	WARDBORO to ALEXANDER RES	IDFG	11	H	C																		
					12	H	C																		
					14	H	C																		
					77	H	C																		
110	274.00	THOMAS FORK CR	WARDBORO to ALEXANDER RES	IDFG	14	H	C																		
					15	H	C																		
					77	H	C																		
	274.00	THOMAS FORK CR	WARDBORO to ALEXANDER RES	IDFG	14	M	A																		
					18	L	A																		
					71	H	C																		
					77	M	C																		
	275.00	PREUSS CR	WARDBORO to ALEXANDER RES	IDFG	15	H	C																		
					77	H	C																		
	276.00	DRY CR	WARDBORO to ALEXANDER RES	IDFG	14	M	A																		
					77	M	C																		
	276.00	DRY CR	WARDBORO to ALEXANDER RES	IDFG	15	H	C																		
					77	H	C																		
	277.00	GIRAFFE CR	WARDBORO to ALEXANDER RES	IDFG	15	M	C																		
					15	H	C																		
					77	H	C																		
	277.00	GIRAFFE CR	WARDBORO to ALEXANDER RES	IDFG	15	H	C																		
					77	H	C																		
121	267.00	BLOOMINGTON CR	WARDBORO to ALEXANDER RES	IDFG	14	M	C																		
					15	M	C																		
					77	M	C																		

APPENDIX A

WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

BB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL																											
																	ST. CHARLES CR	HEADWATERS TO REFUGE	IDFG	14	15	74	77	M	C	C	M	C	M	H	M	32	14	15	21	77	14	15	77	11	14	77	14
268.00		ST. CHARLES CR	HEADWATERS TO REFUGE	IDFG																																							
269.00		LITTLE CR	ST CHARLES CR TO BEAR LK	IDFG																																							
255.00		BAILEY CR	HEADWATERS TO BEAR R	PFO-DEQ																																							
256.00		EIGHTMILE CR	HEADWATERS TO BEAR R	IDFG																																							
256.00		EIGHTMILE CR	HEADWATERS TO BEAR R	PFO-DEQ																																							
257.00		PEARL CR	HEADWATERS TO BEAR R	IDL																																							
257.00		PEARL CR	HEADWATERS TO BEAR R	IDFG																																							
258.00		STAUFFER CR	HEADWATERS TO BEAR R	PFO-DEQ																																							
259.00		COOP CR	HEADWATERS TO STAUFFER CR	PFO-DEQ																																							
262.00		MONTPELIER CR	HEADWATERS TO BEAR R	PFO-DEQ																																							
262.00		MONTPELIER CR	HEADWATERS TO BEAR R	IDFG																																							
265.00		SNOWSLIDE CR	HEADWATERS TO MONTPELIER CR	IDFG																																							

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 BB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	DONES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
266.00	PARIS CR	HEADWATERS to BEAR R	PFO-DEQ	14 51 77	L L C	A C C	L L L				P			S/T	S/T	X
266.00	PARIS CR	HEADWATERS to BEAR R	IDFG	14 15 77	M M M	C C C	M M M				P					X
260.00	GEORGETOWN CR	HEADWATERS to BEAR R	IDFG	31 51 57	H M H	C L	M M		X	X	P			X	X	X
261.00	OVID CR	HEADWATERS to BEAR R	IDFG	14 77	H M	C C	H M				P					X
234.00	ONEIDA NARROWS RES		IDFG	74	H	C	H			X	N	P	X	X	X	X
235.00	BEAR R	COVE POWER PLANT to ONEIDA	IDFG	14 11 74 77	H M H M	C C G	M M H		X	X	N		N	X	X	X
235.00	BEAR R	COVE POWER PLANT to ONEIDA	PFO-DEQ	11 14 18 74 77	M M M H M	C A A A C	M M M M				P			S/T	S/T	X
236.00	BEAR R	ALEXANDER DAM to COVE POWER	IDFG	74	H	G	H		X	X	N		N	X	X	X
236.00	BEAR R	ALEXANDER DAM to COVE POWER	PFO-DEQ	74	M	G	M			X	P		P	S/T	S/T	X
245.00	COTTONWOOD CR	HEADWATERS to BEAR R	PFO-DEQ	11	M	C	M				P		P	S/T	S/T	X
245.00	COTTONWOOD CR	HEADWATERS to BEAR R	IDFG	14 77	M M	C C	M M				P					X
246.00	WILLIAMS CR	HEADWATERS to BEAR R	PFO-DEQ	14 15 18 77	H L L H	A A A C	H L L H				P		P	S/T	S/T	X
246.00	WILLIAMS CR	HEADWATERS to BEAR R	IDFG	14 77	M M	C C	M M				P		P			X
247.00	TROUT CR	HEADWATERS to BEAR R	IDFG	14	H	C	H				P		P			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
247.00		TROUT CR	HEADWATERS to BEAR R	PFO-DEQ	77	H	C	M			P		P	S/T	S/T	X
248.00		WHISKEY CR	HEADWATERS to BEAR R	IDFG	11 12 18	M M H	C C A	M M H			N		N	S/T	S/T	X
248.00		WHISKEY CR	HEADWATERS to BEAR R	PFO-DEQ	11 12 18	M M H	C C A	M M H			P		P	S/T	S/T	X
249.00		DENMORE CR	HEADWATERS to BEAR R	PFO-DEQ	11 12 18	M M H	C C A	M M H			P		P	S/T	S/T	X
252.00		ALEXANDER RES		IDFG	14 11	M H	C C	M H			N		N			X
231.00	40	BEAR R	HIGHWAY 91 to UTAH LINE	IDFG	14 16 74 77	M M M L	C C G C	L L H M		X	P		P	X	X	X
231.00		BEAR R	HIGHWAY 91 to UTAH LINE	IDFG	15 77	H M	C C	M M		X	P		P	X	X	X
231.00		BEAR R	HIGHWAY 91 to UTAH LINE	DEQ	12 18 74	M M H	C O O	M M H		X	P		P	S/T	S/T	X
232.00		BEAR R	MINK CR to HIGHWAY 91	PFO-DEQ	11 12 18 74 77	H M H H	C C A G C	H M H H M		X	P		P	S/T	S/T	X
233.00		BEAR R	ONEIDA DAM to MINK CR	PFO-DEQ	11 14 74 77	M M H M	C A C	M M M		X	P		P	S/T	S/T	X
238.00		WESTON CR	HEADWATERS to BEAR R	PFO-DEQ	11 14 18 74 77	M M H M M	C A A G C	M M M M M			P		P	S/T	S/T	X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	POLLUTANT	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
410	244.00	MINK CR	HEADWATERS to BEAR R	PFO-DEQ		H	C	H	X								X
					11	L	C	L									
					12	H	A	H									
					18												
	244.00	MINK CR	HEADWATERS to BEAR R	IDFG		M	C	M	X					P	X	X	X
					14	M	C	L									
					16	M	C	M									
					16	M	A										
					77	M											
					77												
420	240.00	BATTLE CR	HEADWATERS to BEAR R	DEQ		H	C	H	X						S/T	P	X
					11	L	A	L									
					14	M	A	M									
					18	L	C	L									
					77												
					77												
440	237.00	CUB R	HEADWATERS to UTAH LINE	PFO-DEQ		M	C	M	S/T	X	P			P	S/T	S/T	X
					11	M	A	H									
					14	M	A	M									
					18	M	A	M									
					74	M	G	M									
					77	M	C	M									
					77												
460	237.00	CUB R	HEADWATERS to UTAH LINE	IDFG		M	C	M	X	X	P			P	X	X	X
					15	M	C	M									
					14	M	C	M									
					74	M	G	M									
					74	M	C	M									
					77	M	C	M									
					77												
460	280.00	LOGAN R	HEADWATERS to UTAH LINE	IDFG		H	C	H									
					15	H	C	H									
					77	H	C	H									
					77												
460	281.00	BEAVER CR	HEADWATERS to UTAH LINE	IDFG		H	C	H									
					15	H	C	H									
					77	H	C	H									
					77												
460	285.00	MALAD R	HEADWATERS to PLEASANT VIEW	IDFG		H	C	H									
					11	H	C	H									
					12	H	C	H									
					14	H	C	H									
					74	H	C	H									
					77	H	C	H									
					77												
460	285.00	MALAD R	HEADWATERS to PLEASANT VIEW	DEQ		H	C	H	X	X	P				S/T	S/T	X
					11	H	C	H									
					71	H	C	H									
					71												
460	289.00	SAMARIA CR	HEADWATERS to MALAD R	PFO-DEQ		M	C	M									
					11	L	A	L									
					15	H	C	H									
					71	H	C	H									
					71												
460	290.00	DEVIL CR	HEADWATERS to MALAD R	IDFG		H	C	H									
					11	H	C	H									
					12	H	C	M									
					12												
					11	M	C	M									
					15	L	A	L									
					15	L	A	L									

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 BB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
461	292.00	LITTLE MALAD R	HEADWATERS to MALAD R	IDFG	11 12 14 77 74	H H H H M	C C C C	H M H H	X	N	N	N	N	X		X
	292.00	LITTLE MALAD R	HEADWATERS to MALAD R	PFO-DEQ	11 14 77	H M M	C A C	H M M	X	P	P		P	S/T		X
462	294.00	WRIGHT CR	HEADWATERS to DANIELS RES	PFO-DEQ	11	H	C	H	X	P	P		P	S/T	S/T	X
	294.00	WRIGHT CR	HEADWATERS to DANIELS RES	IDFG	11 14 15 51 77	H L H H H	C C C C C	H H H H H	X	N	N		N	X	X	X
	294.00	WRIGHT CR	HEADWATERS to DANIELS RES	USFS	11 15 51 57	M L M H	C C C C	M L M H	X	P	P		X	P	X	X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

10	6.00	ANTELOPE CR	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
			HEADWATERS to SNAKE R, S FK	PFO-DEQ		H	C	M								
	221.00	TIN CUP CR	HEADWATERS TO SALT R			H	C	M								
	222.00	STUMP CR	HEADWATERS TO SALT R	IDFG		H	C	H								
	225.00	CROW CR	HEADWATERS TO SALT R	IDFG		L	C	H								
20	12.10	RAINEY CR	FOREST BOUNDARY TO SNAKE R,	PFO-DEQ		M	C	M		S/T	P					
	12.10	RAINEY CR	FOREST BOUNDARY TO SNAKE R,	BLM		M	A,C,H	M								
	26.00	SNAKE R	SNAKE R, S FK to WOODVILLE	PFO-DEQ		H	C,H	H								
	26.00	SNAKE R	SNAKE R, S FK to WOODVILLE	BLM		L	C	L								
	30.00	DRY BED	HEADGATE TO SNAKE R	IDFG		H	G	H								
	32.00	BIRCH CR	HEADWATERS to SNAKE R	PFO-DEQ		H	C	H								
	32.00	BIRCH CR	HEADWATERS to SNAKE R	BLM		H	C	H								
210	105.00	HENRY'S LK OUTLET	HENRY'S LK DAM to HENRY'S F	PFO-DEQ		M	A	M								
	105.00	HENRY'S LK OUTLET	HENRY'S LK DAM to HENRY'S F	BLM		M	C	M								
	107.00	HOWARD CR	HEADWATERS TO HENRY'S L	IDFG		H	C	H								
	108.00	TARGHEE CR	HEADWATERS TO HENRY'S L	IDFG		H	F,G	M								

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
220	96.00	SHERIDAN CR	HEADWATERS to ISLAND PARK R	PFO-DEQ	76	M	C,F	M			P		P	S/T	S/T	X
					14	M	A	M								
					77	M	C	M								
	96.00	SHERIDAN CR	HEADWATERS to ISLAND PARK R	BLM	15	M	C,H	M			P		P			X
230	60.00	HENRY'S FORK	WARM SLOUGH to MOUTH	IDFG	14	M	C	M	X	X	P		N	X	X	X
					76	M	C,F	M								
					77	M	C,F	H								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK	IDFG	14	M	C	M			P		P			X
					76	M	C,F	M								
64.00		TEXAS SLOUGH	SNAKE R, S FK TO HENRY'S FK	IDFG	14	L	C	L			P		P			X
					76	L	R	L								
69.00		SAND CR	HEADWATERS to HENRY'S FK	IDFG	14	M	C	M			P		P			X
					76	M	C,F	M								
231	95.00	ELK CR	HEADWATERS TO BUFFALO R	IDFG	65	M	A,D	M			P		P			X
232	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR	IDFG	14	M	C	M			P		P			X
					76	M	C	M								
233	66.00	CONANT CR	FOREST BOUNDARY to FALLS RI	PFO-DEQ	11	H	C	H			P		P	S/T	S/T	X
					14	M	A	M								
					77	M	C	M								
234	114.00	TETON R	TETON DAM SITE to TETON FKS	PFO-DEQ	12	M	C	M	X	X	P		P	S/T	S/T	X
					71	H	C	H								
115.00		TETON R	BITCH CR to TETON DAM SITE	PFO-DEQ	11	M	C	M	X	X	P		P	S/T	S/T	X
					71	H	C	H								
115.00		TETON R	BITCH CR to TETON DAM SITE	BLM	11	M	C	M	X	X	N		N	X	X	X
					73	H	C,H	H								
117.00		TETON R	TRAIL CR to HIGHWAY 33	IDFG	14	H	C	H	X	X	P		P	X	X	X
					76	H	C,F	H								
121.00		CANYON CR	PINCOCK HOT SPR to TETON R	PFO-DEQ	11	H	C	H			P		P	S/T	S/T	X
					74	M	G	M								
122.00		CANYON CR	HEADWATERS TO PINCOCK HOT S	IDFG	14	L	C	L			P		P			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL						
																	73	74	76	11	14	74
	125.00	BADGER CR	R45ET6NS10 to FIRST TRIBUTA	PFO-DEQ		H	G	H														
	127.00	SPRING CR	WYOMING LINE TO TETON R	IDFG		L	C	L														
	128.00	LEIGH CR	WYOMING LINE TO TETON R	PFO-DEQ		H	C	H														
	129.00	PACKSADDLE CR	HEADWATERS TO TETON R	IDFG		L	C	L														
	130.00	HORSESHOE CR	HEADWATERS TO TETON R	IDFG		H	G	H														
	132.00	TETON CR	HIGHWAY 33 to TETON R	PFO-DEQ		M	A	M														
	134.00	DARBY CR	HIGHWAY 33 TO TETON R	IDFG		H	C	H														
	136.00	FOX CR	WYOMING LINE TO TETON R	IDFG		H	C	H														
235	113.00	TETON R, N & S FK	TETON FKS to HENRY'S FK	PFO-DEQ		M	C	M														
	119.00	MOODY CR	FOREST BOUNDARY to TETON R,	PFO-DEQ		M	A	M														
30	347.00	SNAKE R	FERRY BUTTE to AMERICAN FAL	IDFG		M	C	M														
	348.00	SNAKE R	BONNEVILLE COUNTY LN to FER	PFO-DEQ		M	C	M														
	348.00	SNAKE R	BONNEVILLE COUNTY LN to FER	BLM		H	ACDGH	H														

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 USB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
348.00		SNAKE R	BONNEVILLE COUNTY LN to FER	IDFG	11 14	M M	C C	M M	X	X	N	N	N	X	X	X
356.00		MCTUCKER CR	HEADWATERS TO SNAKE R	IDFG	11 15 77	M H H	C C C	M M H			N	N	N			X
360.00		RIRIE RES		BLM	11 15	H M	C C	H M			P	P	P			X
360.00		RIRIE RES		DEQ							P	P	P			X
37.00		WILLOW CR	GRAYS LK OUTLET to RIRIE RE	PFO-DEQ	11 71	H H	C C	H M	X	X	P	P	P	S/T	S/T	X
37.00		WILLOW CR	GRAYS LK OUTLET to RIRIE RE	BLM	11 15	H M	C C	H M	X	X	P	P	P	X	X	X
38.00		WILLOW CR	CELLARS CR to GRAYS LK OUTL	BLM	11 15	H M	C C	H M	X	X	P	P	P	X	X	X
38.00		WILLOW CR	CELLARS CR to GRAYS LK OUTL	PFO-DEQ	11	H	C	H	X	X	P	P	P	S/T	S/T	X
39.00		WILLOW CR	HEADWATERS to CELLARS CR	PFO-DEQ	11 15 87	M M L	C C H	L L L	X	X	P	P	P	S/T	S/T	X
40.00		MEADOW CR	HEADWATERS to RIRIE RES	BLM	11 15	H M	C C	H M			P	P	P			X
40.00		MEADOW CR	HEADWATERS to RIRIE RES	PFO-DEQ	11	H	C	H			P	P	P	S/T	S/T	X
41.00		TEX CR	HEADWATERS to WILLOW CR	BLM	11 15	H M	C C	H M			P	P	P			X
41.00		TEX CR	HEADWATERS to WILLOW CR	PFO-DEQ	11	H	C	H			P	P	P	S/T	S/T	X
42.00		BIRCH CR	HEADWATERS to WILLOW CR	PFO-DEQ	11	H	C	M			P	P	P	S/T	S/T	X
43.00		GRAYS LAKE OUTLET	FALLS R42ET35S3 to WILLOW C	PFO-DEQ	14 77	H H	A C	H H			P	P	P	S/T	S/T	X
43.00		GRAYS LAKE OUTLET	FALLS R42ET35S3 to WILLOW C	BLM	11 15	H M	C C	H M			P	P	P			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

USB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT	EVAL
44.00		GRAYS LAKE OUTLET	GRAYS LK to ABOVE FALLS (T	PFO-DEQ	14 77	H H	A C	H H			P		P	S/T	S/T		X
44.00		GRAYS LAKE OUTLET	GRAYS LK to ABOVE FALLS (T	BLM	11 15	H M	C C	H M			P		P				X
45.00		HELL CR	HEADWATERS to GRAYS LK OUTL	BLM	11 15	H M	C C	H M			P		P				X
45.00		HELL CR	HEADWATERS to GRAYS LK OUTL	PFO-DEQ	14 77	H H	A C	H H			P		P	S/T	S/T		X
46.00		LAVA CR	HEADWATERS TO GRAYS L OUTLE	IDFG	14 76	M M	C C,F	M M			P		P				X
47.00		BROCKMAN CR	HEADWATERS to GRAYS LK OUTL	PFO-DEQ	14 77	H H	A C	H H			P		P	S/T	S/T		X
48.00		CORRAL CR	HEADWATERS TO BROCKMAN CR	IDFG	14 76	M M	C C,F	M M			P		P				X
49.00		SAWMILL CR	HEADWATERS TO BROCKMAN CR	IDFG	14 76	M M	C C,F	M M			P		P				X
50.00		HOMER CR	HEADWATERS to GRAYS LK OUTL	PFO-DEQ	11 15 87	M M L	C C H	L L L		S/T	P		P	S/T	S/T		X
51.00		CELLARS CR	HEADWATERS TO WILLOW CR	IDFG	14 15 21 76 77	M L M	C C F C,G	M L M M			S/T		P				X
53.00		LONG VALLEY CR	HEADWATERS TO WILLOW CR	IDFG	14 76	M M	C C,F	M M			P		P				X
54.00		MILL CR	HEADWATERS TO WILLOW CR	IDFG	14 23 76	M M M	C C C,F	M M M			P		P				X
55.00		HANCOCK CR	HEADWATERS TO WILLOW CR	IDFG	14 76	M M	C C,F	M M			P		P				X
58.00		CRANES CR	HEADWATERS TO WILLOW CR	IDFG	14	M	C	M			S/T		P				X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	57.00	SEVENTY CR	HEADWATERS TO WILLOW CR	IDFG		M		M			P		N			X
	35.00	WILLOW CR	RIRIE DAM to SNAKE R	BLM		H	C	H		X	P		P	X	X	X
	35.00	WILLOW CR	RIRIE DAM to SNAKE R	PFO-DEQ		M	C	M		X	P		P	S/T	S/T	X
	305.00	BLACKFOOT R	HEADWATERS to BLACKFOOT R	IDFG		M	C	H		X	N		N	X	X	X
	303.00	BLACKFOOT R	BLACKFOOT DAM to WOLVERINE	PFO-DEQ		M	C	M		X	P		P	S/T	S/T	X
	303.00	BLACKFOOT R	BLACKFOOT DAM to WOLVERINE	IDFG		H	C	H		X	P		N	X	X	X
	308.00	WOLVERINE CR	HEADWATERS to BLACKFOOT R	PFO-DEQ		M	C	M			P		P	S/T	S/T	X
	306.00	WOLVERINE CR	HEADWATERS to BLACKFOOT R	IDFG		H	C	H			N		N			X
	307.00	RAWLINS CR	HWADWATERS TO BLACKFOOT R	IDFG		H	C	H			N		N			X
	309.00	CORRAL CR	HEADWATERS TO BLACKFOOT R	IDFG		M	C	M			P		P			X
	310.00	MEADOW CR	HEADWATERS TO BLACKFOOT RES	IDFG		M	C	M			N		N			X
	311.00	TRAIL CR	HEADWATERS TO BLACKFOOT R	IDFG		H	C	H			N		N			X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
312.00		SLUG CR	HEADWATERS TO BLACKFOOT R	IDFG	15 77	H H	C C	H H			N		N			X	
313.00		ANGUS CR	HEADWATERS TO BLACKFOOT R	IDFG	15 31 51 77	H H H H	C C C C	H H H H			N		N			X	
314.00		DRY VALLEYCR	HEADWATERS TO BLACKFOOT R	IDFG	15 71 77	H H H	C C C	H H H			N		N			X	
315.00		DIAMOND CR	HEADWATERS TO BLACKFOOT RES	IDFG	15 51 77 71	H H H H	C C C C	H L H H			N		N			X	
316.00		BACON CR	HEADWATERS TO DIAMOND CR	IDFG	15 77	H H	C C	H H			N		N			X	
317.00		TIMOTHY CR	HEADWATERS TO DIAMOND CR	IDFG	15 77	H H	C C	H H			N		N			X	
318.00		CABIN CR	HEADWATERS TO LANES CR	IDFG	15 51 77	H M H	C C C	H M H			P		P			X	
319.00		KENDALL CR	HEADWATERS TO DIAMOND CR	IDFG	15 51 77	H M H	C C C	H M H			P		P			X	
320.00		LANES CR	HEADWATERS TO BLACKFOOT R	IDFG	15 77	H H	C C	H H			P		P			X	
321.00		SHEEP CR	HEADWATERS TO LANES CR	IDFG	15 77	H H	C C	H H			N		N			X	
360	302.10	BLACKFOOT R	WOLVERINE CR to MAIN CANAL	PFO-DEQ	14 18 71 77	H L H H	A A C C	H L H H		X	P		P	S/T	S/T	X	X
	302.10	BLACKFOOT R	WOLVERINE CR to MAIN CANAL	IDFG	11 14 15	H H H	C C C	H H H		X	N		N	X	X	X	X

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 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	POLLUTANT	MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
40	346.00	AMERICAN FALLS RES		BLM	77	H	C	H			X	X	N		X	X	X	X
	346.00	AMERICAN FALLS RES		PFO-DEQ	12	M	A,C,D	M			X	X	P		X	X	X	X
410	325.00	PORTNEUF R	DIVERSION, T9SR37ES22 to MAR	IDFG	14	H	C	H			X	X	N	N	X	X	X	X
	326.00	PORTNEUF R	LAVA HOT SPRINGS to PVC DIV	IDFG	14	H	C	H			X	X	N	N	X	X	X	X
	327.00	PORTNEUF R	CHESTERFIELD CANAL to LAVA	IDFG	77	H	C	H			X	X	N	N	X	X	X	X
	327.00	PORTNEUF R	CHESTERFIELD CANAL to LAVA	PFO-DEQ	11	H	C	H			X	X	N	N	X	X	X	X
	328.00	PORTNEUF R	CHESTERFIELD RES to CHESTER	PFO-DEQ	12	H	C	H			X	X	N	N	X	X	X	X
	328.00	PORTNEUF R	CHESTERFIELD RES to CHESTER	IDFG	71	H	C	H			X	X	N	N	X	X	X	X
	330.00	PORTNEUF R	HEADWATERS to CHESTERFIELD	IDFG	74	H	G	H			X	X	N	N	X	X	X	X
	340.00	DEMPSEY CR	HEADWATERS TO PORTNEUF	IDFG	77	H	C	H			X	X	N	N	X	X	X	X
	341.00	PEBBLE CR	HEADWATERS TO PORTNEUF R	IDFG	11	H	C	H			X	X	N	N	X	X	X	X
	342.00	TWENTYFOUR MILE CR	HEADWATERS to PORTNEUF R	IDFG	14	H	C	H			X	X	N	N	X	X	X	X
					15	H	C	H			X	X	N	N	X	X	X	X
					31	M	C	M			X	X	N	N	X	X	X	X
					77	H	C	H			X	X	N	N	X	X	X	X

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WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

USB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	74				H	C	H									
	77				H	C	H									
342.00		TWENTYFOURMILE CR	HEADWATERS to PORTNEUF R	PFO-DEQ	31	H	C	H			P		P	S/T	S/T	X
	71				H	C	H									
342.00		TWENTYFOURMILE CR	HEADWATERS to PORTNEUF R	BLM	15	M	C,H	M			N		N			X
	78				M	H	M									
343.00		TOPONCE CR	HEADWATERS to PORTNEUF R	IDFG	11	L	C	L			P		P			X
	14				H	C	H									
	15				H	C	H									
	74				M	C	L									
	77				H	C	H									
411		335.00	MARSH CR	HEADWATERS to PORTNEUF R	PFO-DEQ	11	H	C	H	X	P		P	S/T	S/T	X
	14				H	A	H									
	77				H	C	H									
335.00		MARSH CR	HEADWATERS to PORTNEUF R	BLM	15	M	C,H	M			N		N	X	X	X
	78				M	H	M									
335.00		MARSH CR	HEADWATERS to PORTNEUF R	IDFG	11	H	C	H	X	N			N	X	X	X
	14				H	C	H									
	77				H	C	H									
335.01		WALKER CR	HEADWATERS to MARSH CR	PFO-DEQ	11	H	C	H		S/P			P	S/T	S/T	X
335.02		BELL MARSH CR	HEADWATERS to MARSH CR	PFO-DEQ	11	H	C	H		P			P	S/T	S/T	X
335.03		GOODENOUGH CR	HEADWATERS to MARSH CR	PFO-DEQ	11	H	C	H		P			P	S/T	S/T	X
336.00		GARDEN CR	GARDEN CR GAP to MARSH CR	IDFG	11	H	C	H		P			P			X
336.00		GARDEN CR	GARDEN CR GAP to MARSH CR		11	H	C	H								
	14				H	C	H									
	77				H	C	H									
336.00		GARDEN CR	GARDEN CR GAP to MARSH CR	BLM	15	M	C,H	M			N		N			X
	78				M	H	M									
336.00		GARDEN CR	GARDEN CR GAP to MARSH CR	BLM	11	H	C	H		P			P	S/T	S/T	X
	14				H	A	H									
	77				H	C	H									
336.10		GARDEN CR	HEADWATERS to GARDEN CR GAP	PFO-DEQ	11	H	C	H	S/T	P			P	S/T	S/T	X
	14				H	A	H									
	77				H	C	H									

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WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

USB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DONES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
336.10		GARDEN CR	HEADWATERS to GARDEN CR GAP	BLM	15 76	M M	C,H H	M M			N					X X
336.10		GARDEN CR	HEADWATERS to GARDEN CR GAP	IDFG	11 14 77	H H H	C C C	H H H			P		P			X
337.00		HAWKINS CR	HEADWATERS to MARSH CR	PFO-DEQ	11 14 77	H H H	C A C	H H H			P		P	S/T	S/T	X X
337.00		HAWKINS CR	HEADWATERS to MARSH CR	BLM	15 76	M M	C,H H	M M			N		N			X X
337.10		HAWKINS RES		BLM	15 76	M M	A,D,H H	M M			N		N			X
337.10		HAWKINS RES		DEQ							P		P			X
338.00		BIRCH CR	HEADWATERS to MARSH CR	PFO-DEQ	11 14 77	H H H	C A C	H H H			P		P	S/T	S/T	X X
338.00		BIRCH CR	HEADWATERS to MARSH CR	IDFG	11 14 15 77	M H M H	C C C C	M H M H			P		P			X
339.00		CHERRY CR	HEADWATERS to BIRCH CR	BLM	15 76	M M	C,H H	M M			N		N			X X
339.00		CHERRY CR	HEADWATERS to BIRCH CR	PFO-DEQ	11 14 77	H H H	C A C	H H H			P		P	S/T	S/T	X X
339.00		CHERRY CR	HEADWATERS to BIRCH CR	IDFG	11 14 15 77	M H M H	C C C C	H M M H			P		P			X
420	324.00	PORTNEUF R	INTERSTATE 86 to IR BOUNDAR	PFO-DEQ	14 41 51	L L L	A L C	L L L		X	P		P	S/T		X X
324.00		PORTNEUF R	INTERSTATE 86 to IR BOUNDAR	IDFG	11 15 77	H H H	C C C	H H H		X	N		N			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

USB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR IMPACT SOURCE	MAGNITUDE	POLLUTANT	MAGNITUDE	POLLUTANT	MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
324.10		PORTNEUF R	JOHNY CR to INTERSTATE 86	PFO-DEQ	40	H	C	H				X	P	P	S/T			X X	
324.10		PORTNEUF R	JOHNY CR to INTERSTATE 86	IDFG	32	H	C	H											X
					41	H	L	L											
					43	H	K	H											
324.20		PORTNEUF R	MARSH CR to JOHNY CR	PFO-DEQ	41	H	C	H				X	P	N					X
					12	M	C	M											
					31	M	C	M											
					32	M	C	M											
324.20		PORTNEUF R	MARSH CR to JOHNY CR	IDFG	11	H	C	H				X	N	N	X				X
					14	H	C	H											
					77	H	C	H											
331.00		POCATELLO CR	HEADWATERS to PORTNEUF R	IDFG	41	H	C	H											
					43	H	C	H											
332.00		GIBSON JACK CR	HEADWATERS to PORTNEUF R	PFO-DEQ	87	M	H	M											
332.00		GIBSON JACK CR	HEADWATERS to PORTNEUF R	IDFG	43	M	C	M											
333.00		MINK CR	HEADWATERS to PORTNEUF R	BLM	15	M	C,H	M											
					76	M	H	M											
333.00		MINK CR	HEADWATERS to PORTNEUF R	PFO-DEQ	18	L	A	L											
					32	M	C	M											
					83	L	C	L											
333.00		MINK CR	HEADWATERS to PORTNEUF R	IDFG	11	H	C	H											
					14	H	C	H											
					15	H	C	H											
					77	H	C	H											
334.00		RAPID CR	HEADWATERS to PORTNEUF R	IDFG	11	M	C	M											
					14	H	C	H											
					31	L	C	L											
					77	H	C	H											
334.00		RAPID CR	HEADWATERS to PORTNEUF R	BLM	15	M	C,H	M											
					76	M	H	M											
334.00		RAPID CR	HEADWATERS to PORTNEUF R	PFO-DEQ	11	H	C	H											
					32	H	C	H											
					71	H	C	H											

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

USB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
430	349.00	BANNOCK CR	HEADWATERS to IR BOUNDARY	DEQ					X	N	N	N	X	X	X	X
	349.01	MOONSHINE CR	HEADWATERS to IR BOUNDARY	PFO-DEQ						P	P	P	S/T	S/T	X	X
	349.02	BANNOCK CR, W FK	HEADWATERS to IR BOUNDARY	PFO-DEQ						P	P	P	S/T	S/T	X	X
	349.10	BANNOCK CR	IR BOUNDARY to AMERICAN FAL	PFO-DEQ					X	N	N	N			X	X
	350.00	RATTLESNAKE CR	HEADWATERS to IR BOUNDARY	PFO-DEQ						P	P	P	S/T	S/T	X	X
50	362.00	SNAKE R	MASSACRE ROCKS to LAKE WALC	BLM					N	S/T	S/T		N	S/T	X	X
	363.00	SNAKE R	EAGLE ROCK to MASSACRE ROCK	IDFG					X	X	P		X	X	X	X
	363.10	SNAKE R	AMERICAN FALLS DAM to EAGLE	IDFG					X	X	N		X	X	X	X
510	365.00	ROCK CR	HEADWATERS to SNAKE R	PFO-DEQ					X	P	P	P	S/T	S/T	X	X
	365.00	ROCK CR	HEADWATERS to SNAKER	IDFG					X	N	N	N	X	X	X	X
	366.00	ROCK CR, E FK	HEADWATERS TO ROCK CR	IDFG						P	P	P			X	X
520	430.00	RAFT R	MALTA to SNAKE R	TFO-DEQ					X	S/T	S/T	S/T	N	S/T	X	X
	431.00	RAFT R	UTAH LINE to MALTA	BLM						P	P	N	N	P	X	X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	31				M		C,F,G	M								
	32				M		C,F,G	M								
	71				M		C,E,F									
	74				M		C,E,F									
	76				M		C,E,F									
	77				M		C,E,F									
	86				H											
431.00		RAFT R	UTAH LINE to MALTA	TFO-DEQ			C	H	X	S/T	S/T	S/T	N	S/T		X
432.00		SUBLETT CR	2 MI BELOW SUBLETT RES to L	TFO-DEQ			C	H		S/T	S/T	S/T	N	S/T		X
434.00		SUBLETT RES		TFO-DEQ			A,C,D	M		S/T	S/T	S/T	N	S/T		X
	15				M		G	M								
	74				M											
359.00		MILNER RES		TFO-DEQ			A,C	H		S/T	S/T	S/T	N	S/T		X
	12				H		I	M								
	14				M		ADIP	M								
	16				M		C,K	L								
	41				L		C	L								
	72				L		G	H								
	74				H		C	L								
	77				L		K	L								
377.00		SNAKE R	MURTAUGH to TWIN FALLS RES	TFO-DEQ			A,C	M		S/T	S/T	S/T	P	S/T		X
	12				M		ADIP	M								
	16				M											
	74				M		G	M								
	75				M											
378.00		SNAKE R	MILNER DAM to MURTAUGH	BLM			A,D,I	H		S/T	P	P	N	N		X
	10				H		F,G,H	H								
	74				H											
378.00		SNAKE R	MILNER DAM to MURTAUGH	TFO-DEQ			A,C	M		S/T	S/T	S/T	P	S/T		X
	12				M		ADIP	L								
	16				L											
	74				H		G	H								
	75				H											
380.00		PIONEER RES		TFO-DEQ			A,C	M		S/T	S/T	S/T	N	S/T		X
	12				M		C,P	L								
	15				M		ADIP	M								
	16				M		G	H								
	74				H											
407.00		VINYARD CR	HEADWATERS to SNAKE R	TFO-DEQ			A,C	H		S/T	P	P	P	S/T		X
	12				H		AD,I	M								
	14				M		ACDIP	M								
	16				M											

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
610	446.00	OAKLEY RES		TFO-DEQ	74	M	G	M	S/T	S/T	S/T	N	N	S/T	S/T	X
	447.00	GOOSE CR	HEADWATERS to OAKLEY RES	BLM	15	H	C	M	P	P	P	X	X	N	N	X
	448.00	BIRCH CR	HEADWATERS to OAKLEY (TOWN)	BLM	14	H	ACDFI	H	S/T	P	P			P	P	X
	448.00	TRAPPER CR	HEADWATERS to OAKLEY RES	USFS	18	H	ACDFI	H		P						X
	449.00	TRAPPER CR	HEADWATERS to OAKLEY RES	BLM	17	M	C.F.G	M	S/T	P	P			P	P	X
70	375.00	SHOSHONE FALLS RES		TFO-DEQ	18	M	C.F.G	M	S/T	S/T	S/T	N	N	S/T	S/T	X
	395.00	CLEAR SPRINGS	HEADWATERS to SNAKE R	TFO-DEQ	12	H	A,C,D	H	S/T	S/T	S/T	P	P	N	S/T	X
	398.00	CRYSTAL SPRINGS	HEADWATERS to SNAKE R	TFO-DEQ	17	L	A	L	S/T	S/T	S/T			N	S/T	X
	399.00	ELLISON CR	HEADWATERS to SNAKE R	TFO-DEQ	32	M	A,C	L	S/T	S/T	S/T	P	P	S/T	S/T	X
710	408.00	DRY CR	MEDLEY CR to SNAKE R	BLM	85	M	C	M	P	P	P			N	S/T	X
	409.00	DRY CR	HEADWATERS to MEDLEY CR	BLM	12	H	A,D,P	M	S/T	S/T	S/T	P	P	N	S/T	X
	411.00	DRY CR, W FK	HEADWATERS to DRY CR	TFO-DEQ	16	M	A,C	H	P	P	P			N	S/T	X
					74	M	ACDIP	M								
					74	M	G	M								
					15	M	CFGI	M								
					18	M	CFGI	M								
					74	M		M								
					15	M	CFGI	M								
					18	M	CFGI	M								
					74	M		M								

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

USB SEG #	PFRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
730	400.00	ROCK CR	ROCK CREEK (TOWN) to SNAKE			H	ACDI	H		S/T	S/T		P	S/T	S/T	X
	403.00	COTTONWOOD CR	HEADWATERS to ROCK CR	BLM		H	A,C	H		S/T	N		N			X
	403.00	COTTONWOOD CR	HEADWATERS to ROCK CR	TFO-DEQ		H	A,C,M	M		S/T	S/T		S/T	N	S/T	X
	404.00	MCMULLEN CR	HEADWATERS to COTTONWOOD CR	BLM		M	I	M		S/T	S/T		P	P	S/T	X
	404.00	MCMULLEN CR	HEADWATERS to COTTONWOOD CR	USFS		H	C,F	H			P					X
	404.00	MCMULLEN CR	HEADWATERS to COTTONWOOD CR			M	ACDI	M		S/T	S/T		P	S/T	S/T	X
80	369.00	SNAKE R	BLISS BRIDGE to KING HILL D	BFO0DEQ		M	C	M		X	S/T		P	P	S/T	X
	370.00	BLISS RES		TFO-DEQ		H	A,C,D	H	X		S/T		N	S/T	S/T	X
	370.00	BLISS RES		BFO-DEQ		M	C	M		X	S/T		N	P	S/T	X
	372.00	L. SALMON FALLS RE		TFO-DEQ		H	A,C	M		X	S/T		N	S/T	S/T	X
	373.00	U. SALMON FALLS RE		TFO-DEQ		M	G	M		X	S/T		N	S/T	S/T	X
	386.00	THOUSAND SPRINGS C	HEADWATERS to SNAKE R			L	AC	L		S/T	S/T		S/T	P	S/T	X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES			AGRI			COLD			WARM			PRIM			SEC	CONTR	RECR	MONIT	EVAL
									WATER SUPPLY																			
389.00		BLIND CANYON CR	HEADWATERS to SNAKE R						L	ACDI																		
									M	A,C																		
									M	G																		
820	458.00	SALMON FALLS CR	SALMON FALLS DAM to SNAKE R	BLM					H	A																		
									H	C																		
									M	C																		
									H																			
									H																			
									M																			
458.00	458.00	SALMON FALLS CR	SALMON FALLS DAM to SNAKE R	BLM					M	A,C																		
									M	A,C																		
									M	ACDIP																		
									H	G																		
									M	C																		
458.00	458.00	SALMON FALLS CR	SALMON FALLS DAM to SNAKE R	BLM					H	C,D,M																		
									H	G																		
460.00	460.00	SALMON FALLS CR	NEVADA LINE to SALMON FALLS	BLM					M	C																		
									M	C,F,H																		
									M	C																		
461.00	461.00	DEVIL CR	HEADWATERS to SALMON FALLS						M																			
462.00	462.00	CEDAR CR	ROSEWORTH RES to SALMON FAL	TFO-DEQ					M	ACDI																		
									M	ACDI																		
									H	G																		
463.00	463.00	ROSEWORTH RES	OR CEDAR CR RES						M	A,C,D																		
									M	A,C,D																		
									M	ACDIP																		
									M	G																		
465.00	465.00	HOUSE CR	HEADWATERS to ROSEWORTH RES	TFO-DEQ					M	ACDI																		
									M	ACDI																		
									M	ACDIP																		
									M	G																		
466.00	466.00	SHOSHONE CR	MAGIC HOT SPRINGS to NEVADA	BLM					H	CDFI																		
									M	CDFI																		
									M	CDFI																		
									M	I																		
467.00	467.00	SHOSHONE CR	BIG CR to MAGIC HOT SPRINGS	BLM					M	CDFI																		

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL					
468.00	87	SHOSHONE CR	COTTONWOOD CR to BIG CR	BLM	77	M	C	M													
					87	M	I	M													
					15	H	CDFI	M													
					71	H	CDFI	H													
					86	M	G	M													
					15	M	A.C,D	M													
468.00	77	SHOSHONE CR	COTTONWOOD CR to BIG CR		77	M	C	M													
					77	M	C	M													
471.00	77	COTTONWOOD CR	HEADWATERS to SHOSHONE CR		15	M	A.C,D	M													
					77	M	C	M													
					15	M	A.C,D	M													
					77	M	C	M													
830	385.00	RILEY CR	HEADWATERS to SNAKE R		12	M	A.C	M													
					14	M	ACDI	M													
					16	M	ACDIP	M													
					17	M	A.C	M													
					74	M		M													
					74	M		M													
840	384.00	BILLINGSLEY CR	HEADWATERS to SNAKE R		12	M	A.C	M													
					14	M	A.C,P	M													
					16	H	ACDP	M													
					17	M	AC	M													
					32	M	C	M													
					74	H	G	M													
850	491.00	CROY CR	HEADWATERS to BIG WOOD R		77	M	C	M													
					15	M	A.C	M													
					31	M	C	M													
					57	L	C	M													
					74	M	G	M													
					74	M		M													
861	537.00	SOLDIER CR	BASELINE to CAMAS CR		11	M	C	M													
					12	L	A.C	M													
					14	M	ACDI	M													
					74	H	G	M													
					77	H	C	M													
					77	H		M													
870	476.00	BIG WOOD R	LITTLE WOOD R to INTERSTATE	TFO-DEQ	12	M	A.C,D	M													
					15	M	ACDI	M													
					16	M	G	M													
					74	M		M													
					77	M	C	M													
					77	M		M													
870	477.00	BIG WOOD R	HIGHWAY 75 to LITTLE WOOD R		12	H	A.C	H													
					16	H	ACDIP	H													
					74	M	G	M													
					77	M	C	M													

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
478.00		BIG WOOD R	RICHFIELD DIVERSION to HIGH	77	M	C		M		X	S/T		P	P	S/T	X
513.00		LITTLE WOOD R	EAST CANAL DIVERSION to SIL	15 74 77	M H M	AC G C		M H M		X	S/T		S/T	P	S/T	X
515.00		LITTLE WOOD RES		TFO-DEQ												
521.00		DRY CR	HEADWATERS to LITTLE WOOD R	12 14 16 74 77	M M M M M	AC A.C.D ACDI G C		M M M M M			S/T		N	S/T	S/T	X
522.00		FISH CR														
523.00		FISH CREEK RES	FISH CREEK RES to CAREY L	11 12 14 74	M L M M	C AC ACDI G		M L M H			S/T		P	P	S/T	X
511.00		LITTLE WOOD R	RICHFIELD (TOWN) to BIG WOO	15 74	M M	ACDI G		M M			S/T		N	S/T	S/T	X
379.00		CLOVER CR	PIONEER RES to SNAKE R	12 14 16 74 77	H M M H H	AC A.C.D ACDI G C		H M M H H		X	S/T		P	P	S/T	X
227.00		SAGE CR	HEADWATERS TO STUMP CR	15 77	M L	C C		L M			P		P			X
190.00		CAMAS CR	HIGHWAY 91 to MUD LAKE	14 71 77	M M M	A C C		M M M		X	P		P	S/T	S/T	X
191.00		CAMAS CR	SPRING CR to HIGHWAY 91	14 71 77	M M M	A C C		M M M		X	P		P	S/T	S/T	X
191.00		CAMAS CR	SPRING CR to HIGHWAY 91							X	P		P	X	X	X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
911	193.00	BEAVER CR	DUBOIS to CAMAS CR	PFO-DEQ	12	M	CFGH	M									
					15	M	CFGH	M									
	193.00	BEAVER CR	DUBOIS to CAMAS CR	BLM	14	M	A	M	X	X	P	P	P	S/T	S/T	X	
					77	M	C	M									
	194.00	BEAVER CR	SPENCER to DUBOIS	PFO-DEQ	12	M	CFGH	M									
					15	H	CFGH	H									
76					M		M	X	X	P	P	P	P	X	X	X	
194.00	BEAVER CR	SPENCER to DUBOIS	BLM	14	M	A	M	X	X	P	P	P	S/T	S/T	X		
				77	M	C	M										
194.00	BEAVER CR	SPENCER to DUBOIS	BLM	12	M	CFGH	H										
				15	H	CFGH	H	X	X	P	P	P	P	X	X	X	
194.00	BEAVER CR	SPENCER to DUBOIS	BLM	76	M		M										
				77	M		M	X	X	P	P	P	P	S/T	S/T	X	
920	205.00	MEDICINE LODGE CR	SMALL to SINKS	PFO-DEQ	77	M											
208.00	MEDICINE LODGE CR	WARM CR to SMALL	IDFG	14	H	C	H										
				76	H	C,F	H	X	X	P	P	P	P	X	X		
				77	M	G	M										
210.00	EDDIE CR	HEADWATERS to MEDICINE LODG	BLM	15	M	C,H	H										
				76	M	H	M	X	X	P	P	P	P	X	X		
210.00	EDDIE CR	HEADWATERS to MEDICINE LODG	PFO-DEQ	14	M	A	M										
				77	M	C	M	X	X	P	P	P	P	S/T	S/T	X	
211.00	IRVING CR	HEADWATERS to MEDICINE LODG	PFO-DEQ	14	M	A	M										
				77	M	C	M	X	X	P	P	P	P	S/T	S/T	X	
211.00	IRVING CR	HEADWATERS to MEDICINE LODG	BLM	15	M	C,H	M										
				76	M	H	M	X	X	P	P	P	P	X	X		
212.00	FRITZ CR	HEADWATERS to MEDICINE LODG	IDFG	14	H	C	H										
				76	H	C,F	H	X	X	P	P	P	P	X	X		
				77	M	F	M										
213.00	WARM CR	HEADWATERS to MEDICINE LODG	IDFG	14	H	C	H										
				76	M	C,F	M	X	X	P	P	P	P	X	X		
154.00	BIRCH CR	RENO DITCH to SINKS	PFO-DEQ	14	M	A	M										
				77	M	C	M	X	X	P	P	P	P	S/T	S/T	X	

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
154.00		BIRCH CR	RENO DITCH to SINKS	BLM	73 74	H H	G,H G,H	H H	X	X	N	N	X	X	X	X
155.00		BIRCH CR	BLUE DOME to RENO DITCH	IDFG	14 76 77	M M M	C C,G C,G	M M M	X	X	S/T	P	X	X	X	X
215.00		WARM SPRINGS CR	HEADWATERS TO BIRCH CR	PFO-DEQ	14 77	M M	A C	M M			P	P	S/T	S/T	S/T	X
940	143.00	BADGER CR	HEADWATERS to LITTLE LOST R	PFO-DEQ	14 77	M M	A C	M M			P	P	S/T	S/T	S/T	X
143.00		BADGER CR	HEADWATERS to LITTLE LOST R	USFS	14 15 30	H H L	C	H	S/T	S/T	P	P				X
144.00		DEER CR	HEADWATERS TO LITTLE LOST R	IDFG	14 76	M M	C C,F,G	M M			P	P	P	S/T	S/T	X
145.00		WET CR	HEADWATERS TO LITTLE LOST R	IDFG	14 74 76	M M M	C F,G C,F	M M M			P	P	P			X
148.00		DRY CR	DIVERSION to WET CR (T to 1	PFO-DEQ	14 77	M M	A C	M M			P	P	P	S/T	S/T	X
148.00		DRY CR	DIVERSION to WET CR (T to 1	BLM	73 74	H H	G,H G,H	H H			N	N	N			X
147.00		DRY CR	HEADWATERS TO DIVERSION	IDFG	14 76	H H	C C,F	H H			P	P	P			X
148.00		SAWMILL CR	HEADWATERS TO LITTLE LOST R	IDFG	14 76	H H	C C	H H			P	P	P			X
950	161.00	BIG LOST R	MOORE DIVERSION to US 26 AT	PFO-DEQ	11 12 14 71 77	M M M M M	C C A C C	H M M H M	X	X	P	P	P	S/T	S/T	X
161.00		BIG LOST R	MOORE DIVERSION to US 26 AT	BLM	12 15 76	H H M	CDGH CDFGH	H H			N	N	N	X	X	X
163.00		MACKAY RES		DEQ							P					X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 USB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
164.00		BIG LOST R	CHILLY BUTTES to MACKAY RES	PFO-DEQ	14 77	M M	A C	M M	X	X	P	P	P	S/T	S/T	X
167.00		SPRING CR	SPRINGS to BIG LOST R	BLM	12 15 76	M H M	CFGH CFGH	M H			P	P	P			X
167.00		SPRING CR	SPRINGS to BIG LOST R	PFO-DEQ	14 77	M M	A C	M M			P	P	P	S/T	S/T	X
168.00		ANTELOPE CR	HEADWATERS TO BIG LOST R	IDFG	14 74 76 77	M M M M	C F,G C,F G	M M M M			P	P	P			X
169.00		CHERRY CR	HEADWATERS TO ANTELOPE CR	IDFG	14 76 77	H H L	C C,F C,F	H H L			P	P	P			X
176.00		TWIN BRIDGES CR	HEADWATERS TO BIG LOST R	USFS	15 30	H L	C	H			P	P	P			X
176.00		TWIN BRIDGES CR	HEADWATERS TO BIG LOST R	PFO-DEQ	14 77	M M	A C	M M			P	P	P	S/T	S/T	X
180.00		BIG LOST R, E FK	HEADWATERS TO STARHOPE CR	IDFG	14 76 77	M M M	C C,F C,F	M M M			P	P	P			X
181.00		WILDHORSE CR	HEADWATERS TO BIG LOST R, E	IDFG	14 77	L M	C C,G	L M			P	P	P			X
183.00		STARHOPE CR	HEADWATERS TO BIG LOST R, E	IDFG	14 76	M M	C C	M M			P	P	P			X
185.00		MULDOON CR	HEADWATERS TO STARHOPE CR	IDFG	14 76	M M	C C	M M			P	P	P			X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
10	414.00	CJ STRIKE RES		IDFG												
						12	M	A, M								
	415.00	SNAKE R	KING HILL to HWY 51 BRIDGE	BFO-DEQ		12	M	C		S/T	S/T	S/T	P	S/T	S/T	X
	418.00	BROWNS CR	HEADWATERS to SNAKE R	BFO-DEQ		12	M	C		S/T				N	N	X
	420.00	SAILOR CR	HEADWATERS to SNAKE R	BFO-DEQ		12	M	C		S/T	N			N	N	X
	422.00	RYEGRASS CR	HEADWATERS to COLD SPRINGS	BFO-DEQ		14	M	C		S/T				N	N	X
						15	M	C						N	N	X
	423.00	ALAKLI CR	HEADWATERS to SNAKE R	BFO-DEQ		14	M	C		S/T				N	N	X
						15	M	C						N	N	X
	424.00	LITTLE CANYON CR	HEADWATERS TO SNAKE R	BLM		15	H	C			S/T		P			X
						31	M	C								
						74	M	G								
	425.00	DEADMAN CR	HEADWATERS to SNAKE R	BFO-DEQ		14	M	C		S/T				N	N	X
						15	M	C						N	N	X
	563.00	SHEEP CR	MARYS CR TO BRUNEAU R	BLM		15	H	C,F			P		P			X
						76	H	C,F								
110	550.00	BRUNEAU R	NEVADA LINE to HOT CR	BLM		15	H	C		X	P		P	X	X	X
						51	L	C								
						76	M	H								
						77	M	H								
	550.00	BRUNEAU R	NEVADA LINE to HOT CR	BFO-DEQ		15	M	C		S/T	P		P	P	S/T	X
	557.00	HOT CR	HEADWATERS to BRUNEAU R	BLM		15	H	C				P				X
						74	H	G,H								
						76	H	H								
						77	H	C,G								
						87	H	I								
	557.00	HOT CR	HEADWATERS to BRUNEAU R	BFO-DEQ		15	M	C		S/T		N		N	N	X
	564.00	SHEEP CR	NEVADA LINE TO MARYS CR	BLM		14	M	G			P		P			X
						15	H	C								
						74	M	F,G								
						76	M	F								
						76	M	G								
	565.00	MARYS CR	R1 BOUNDARY TO SHEEP CR	BLM							P		P			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SWB SEG #	PINRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
111	587.00	COUGAR CR	HEADWATERS to JARBIDGER	BFO-DEQ	14	M	F,G	M	S/T	N	N	N	N	N	N	X
	588.00	POISEN CR	HEADWATERS to JARBIDGER	BFO-DEQ	15	H	C	M	S/T	N	N	P	N	N	N	X
112	558.00	BRUNEAU R, E FK	HEADWATERS to BRUNEAU R	BFO-DEQ	74	M	F,G	M	X	S/T	P	X	N	N	P	X
	559.00	BIG FLAT CR	NEVADA LINE to BRUNEAU R, E	BFO-DEQ	15	M	C	M	S/T	P	P	N	N	N	P	X
	580.00	CHERRY CR	NEVADA LINE to BRUNEAU R, E	BFO-DEQ	15	M	C	M	S/T	P	P	N	N	N	P	X
	581.00	THREE CR	HEADWATERS to BRUNEAU R, E	BFO-DEQ	15	M	C	M	S/T	P	P	N	N	N	P	X
	582.00	DEADWOOD CR	HEADWATERS to BRUNEAU R, E	BFO-DEQ	15	M	C	M	S/T	P	P	N	N	N	P	X
120	549.00	BRUNEAU R	HOT CR to C J STRIKE RES	BLM	12	H	C	M	X	P	P	P	X	X	X	X
	549.00	BRUNEAU R	HOT CR to C J STRIKE RES	BFO-DEQ	12	H	F	M	S/T	P	P	S/T	P	P	S/T	X
	551.00	JACKS CR	LITTLE JACKS CR to C J STRI	BFO-DEQ	14	H	C	M	S/T	N	N	N	N	N	N	X
	551.00	JACKS CR	LITTLE JACKS CR to C J STRI	BLM	14	H	AC	H	S/T	N	N	N	N	N	N	X
	552.00	SUGAR CR	HEADWATERS to JACKS CR	BFO-DEQ	17	M	AC	M	S/T	N	N	N	N	N	N	X
					16	M	D	M								
					12	M	C	M								
					14	H	C,G	H								
					15	H	C	H								
					17	H	A	M								
					17	H	F,G	H								
					74	H	G	H								
					76	H	H	H								
					77	H	H	H								
					12	M	C	M	S/T	N	N	N	N	N	N	X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB
 SEG #

PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
555.00	WICKAHONEY CR	HEADWATERS TO BIG JACKS CR	BLM	14 17	M M	C C	M M			P		P			X
661.01	COW CR	HEADWATERS TO OREGON LINE	BLM	15 76 77	H M M	C,G H C	M M M			P		P			X
668.00	SNAKE R	SWAN FALLS to BOISE R	BFO-DEQ	14 15 74 77	H H H H	FG C,F F,G C,F F,G	H H H H	S/T	S/T	S/T	S/T	N	S/T	S/T	X
669.00	SNAKE R	CASTLE CR to SWAN FALLS	BFO-DEQ	12 14 15	M M M	C C C	M M M	S/T	S/T	S/T	S/T	N	S/T	S/T	X
670.00	SNAKE R	C J STRIKE RES to CASTLE CR	BFO-DEQ	12 14 15	M M M	C C C	M M M	S/T	S/T	S/T	S/T	N	S/T	S/T	X
674.00	SQUAW CR	HEADWATERS to SNAKE R	BFO-DEQ	12 14	M M	C C	M M	N	S/T	N	N	N	N	S/T	X
675.00	HARDTRIGGER CR	HEADWATERS to SNAKE R	BFO-DEQ	12 14	M M	C C	M M	S/T	S/T	N	N	N	N	S/T	X
677.00	RABBIT CR	HEADWATERS to SNAKE R	BFO-DEQ	12 14	M M	C C	M M	S/T	S/T	N	N	N	N	S/T	X
679.00	SINKER CR	HEADWATERS TO HIGHWAY BRIDG	BLM	14 15 73 74 76	H H H H	F,G C,F,G F,G F,G C,F,G	H H H H			P		P			X
680.00	CASTLE CR	T5SR1ES28 to SNAKE R	BFO-DEQ	12 14 15	M M M	C C C	M M M	S/T	S/T	S/T	S/T	N	S/T	S/T	X
680.00	CASTLE CR	T5SR1ES28 to SNAKE R	BLM	15 31 76	H M H	C,F,G C C,F,G	H M M			P		P			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SWB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
				77		H	C,G	H								
681.00		PICKETT CR	T5SR1WS32 to CASTLE CR	BFO-DEQ		M	C	M	S/T	N	N	N	S/T	S/T		X
				12		M										
				14		M	C	M								
				15		M	C	M								
681.10		PICKETT CR	HEADWATERS TO T5SR1WS32	BLM		H	C,F,G	H		P	P	P				X
				15		H	C,F,G	H								
				76		H	C,F,G	H								
				77		H	G	H								
682.00		BROWNS CR	HEADWATERS TO PICKETT CR	BFO-DEQ		M	C	M	S/T	S/T	N	N	S/T	S/T		X
				12		M										
				14		M	C	M								
				15		M	C	M								
683.00		CASTLE CR, S FK	HEADWATERS TO CASTLE CR	BLM		H	C,F,G	H		P	P	P				X
				15		H	C,F,G	H								
				76		H	C,F,G	H								
				77		H	C,F	H								
683.00		CASTLE CR, S FK	HEADWATERS TO CASTLE CR	BFO-DEQ		M	C	M	S/T	S/T	N	N	S/T	S/T		X
				12		M										
				14		M	C	M								
				15		M	C	M								
684.00		BIRCH CR	HEADWATERS TO SNAKE R	BFO-DEQ		M	C	M	S/T	N	N	N	N	S/T		X
				12		M										
				14		M	C	M								
				15		M	C	M								
685.00		CORDER CR	HEADWATERS TO SNAKE R	BFO-DEQ		M	C	M	S/T	N	N	N	N	S/T		X
				12		M										
				14		M	C	M								
				15		M	C	M								
687.00		POISON CR	HEADWATERS TO SHOEFLY CR	BFO-DEQ		M	C	M	S/T	S/T	N	N	S/T	S/T		X
				14		M										
				15		M	C	M								
825.00		DENNETT CR	HEADWATERS TO SNAKE R	BLM		H	C,F,G	H		P	P	P				X
				15		H	C,F	H								
				51		H	C	H								
				57		M	C	H								
				76		H	C,F	H								
				77		M	C,F,G	M								
210	676.00	REYNOLDS CR	DIVERSION TO SNAKE R	BFO-DEQ		M	C	M	S/T	N	N	N	N	S/T		X
				12		M										
				14		M	C	M								
220	73.00	SUCCOR CR	OREGON LINE TO SNAKE R	BFO-DEQ		M	C	M	S/T	N	N	N	N	S/T		X
				12		M										
				14		M	C	M								
682.00		SODA CR	HEADWATERS TO COW CR (T to	IDL		L	C	L		P	P	P				X
				53		L		L								
				77		L	C	L								

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
SWB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
662.00		SODA CR	HEADWATERS TO COW CR (T to	BFO-DEQ					S/T	N	N	N	N	N	N	X
671.10		SUCCOR CR	HEADWATERS TO OREGON LINE	BLM	15 53	M M	C C	M M			P		P			X
671.10		SUCCOR CR	HEADWATERS TO OREGON LINE	BFO-DEQ	14 15 51 73 74 76 77	H H L H M	F,G C C F,G F,G F,G F,G	H H L H H H H	S/T	N	N	N	N	N	S/T	X
613.00		RED CANYON CR	HEADWATERS TO OWYHEE R	BLM	15 74 76 77 77	H M H H H	C,G G C,F,G C G	H M H H M		P	P		P			X
614.00		DEEP CR	HEADWATERS TO OWYHEE R	BLM	15 76 77	H H H	C,F C,F C,F	H H H		P	P		P			X
616.00		CASTLE CR	HEADWATERS TO DEEP CR	BLM	15 76	H M	C C,F	H H		P	P		P			X
617.00		POLE CR	HEADWATERS TO DEEP CR	BLM	15 76 77	H H H	C,F,G C,F C	H H H		P	P		P			X
618.10		NICKEL CR	HEADWATERS TO MUD FLAT RD	BFO-DEQ	15	M	C	M	S/T	N	N	N	N	N	N	X
621.00		BATTLE CR	HEADWATERS TO OWYHEE R	BLM	14 14 15 15 74 76 77 77	H H H H H H H H	C F,G C F F,G C,F,G C H	M H H H M H H M		P		P				X
625.00		JUNIPER BASIN RES		BFO-DEQ	15	M	C	M	S/T	S/T	S/T	N	N	S/T	S/T	X
627.00		BLUE CR RES	RES	BFO-DEQ	15	L	C	L	S/T	S/T	S/T	N	N	S/T	S/T	X
628.00		BLUE CR	HEADWATERS TO BLUE CR RESER	BLM	15 76 77	H H H	C,F,G C,F,G C,F,G	H H H		N	N	N	N			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
SWB

SEG #	PNRS #	NAME	BOUNDARIES	HEADWATERS TO BLUE CR (T to	SHOEFY CR	SUBMITTED BY	MAJOR SOURCE IMPACT	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
							MAJOR SOURCE IMPACT	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
630.00		SHOEFY CR	HEADWATERS TO BLUE CR (T to	BFO-DEQ		15	L	C	L		S/T	S/T		N	N	N	X
231	632.00	OWYHEE R, S FK	NEVADA LINE TO OWYHEE R	BLM		14	M	F,G	M	X	X	P		P	X	X	X
						15	H	C,F,G	H								
						74	M	G	M								
						76	H	C,F,G	H								
						77	H	C,F,G	H								
232	641.00	OWYHEE R, N FK	HEADWATERS TO OREGON LINE	BLM		15	H	C,F,G	H	X	X	P		P	X	X	X
						76	H	C,F,G	H								
						77	H	C,F,G	H								
641.01		CABIN CR	HEADWATERS TO OWYHEE R, N F	BLM		15	H	C,F	H			P		P			X
						76	H	C,F,G	H								
						77	H	C,G	H								
641.02		CORRAL CR	HEADWATERS TO OWYHEE R, N F	BLM		15	H	C,F,G	H			P		P			X
						76	H	C,F,G	H								
						77	H	C,F	H								
642.00		SQUAW CR	HEADWATERS TO OREGON LINE	BFO-DEQ		15	L	C	L		S/T	N		N	N	N	X
642.00		SQUAW CR	HEADWATERS TO OREGON LINE	BLM		14	M	G	H			P		P			X
						15	H	C	H								
						74	M	F	H								
						74	M	G	M								
						76	H	C,F,G	H								
						77	M	C	H								
						77	M	G	M								
644.00		JUNIPER CR	HEADWATERS TO OWYHEE R, N F	BLM		14	H	C,F,G	H			P		P			X
						15	H	C,F	H								
						74	H	F,G	H								
						76	H	C,F,G	H								
						77	H	C,G	H								
645.00		PLEASANT VALLEY CR	HEADWATERS TO OWYHEE R, N F	BLM		15	H	C,F,G	H			P		P			X
						76	H	C,F,G	H								
						77	H	C	H								
646.00		HIGH NOON CR	HEADWATERS TO OWYHEE R, N F	BLM		15	H	C	H			P		S/T			X
						76	H	C	H								
						76	H	F	M								
						77	H	C	M								
672.00		MCBRIDE CR	HEADWATERS TO OREGON LINE	BLM		14	H	F,G	H			P		P			X
						15	H	C	H								
						76	H	F,G	H								
						77	H	G	H								

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB
 SEG # PINRS # NAME BOUNDARIES

SEG #	PINRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
2321	640.00	OWYHEE R, M FK	HEADWATERS TO OREGON LINE	BLM	15	H	C,F,G	H	X	X	P	P	P	X	X	X
233	648.00	JORDAN CR	WILLIAMS CR TO OREGON LINE	IDL	76	H	C,G	H								
					77	H	C,F,G	H	X	X	P	P	P	X	X	X
648.00	JORDAN CR	WILLIAMS CR TO OREGON LINE	BFO-DEQ		53	M	C,K,M	L	X	X	S/T	S/T	P	X	X	X
					77	M	C	M								
					12	L	C									
					14	M	H,I									
					51	M	C		X	X	S/T	S/T	P	X	X	X
649.00	JORDAN CR	HEADWATERS TO WILLIAMS CR	BLM		14	M	G	H	X	X	P	P	P	X	X	X
					15	H	C	M								
					31	H	C	H								
					51	H	C	H								
					54	M	C	H								
					56	M	C,O	M								
					57	M	C	M								
					74	M	G	M	X	X	P	P	P	X	X	X
					76	M	C	H								
					77	M	C	M								
					85	L	M		X	X	P	P	P	X	X	X
					87	M										
649.00	JORDAN CR	HEADWATERS TO WILLIAMS CR	IDL		53	M	C,K,M	L	X	X	P	P	P	X	X	X
					77	M	C	M								
650.00	WILLIAMS CR	HEADWATERS TO JORDAN CR	BLM		14	M	G	H			P	P	S/T			X
					15	H	C	H								
					15	H	H	M								
					51	M	C,H	M								
					56	M	C,H,L	M								
					74	M	F	M								
					74	M	G	H								
					76	M	C,F,G	H								
					77	M	C	H								
654.00	ROCK CR	TRIANGLE RES TO BIG BOULDER	BLM		14	H	F,G	H			P	P	P			X
					15	H	C	H								
					74	M	F,G	H								
					76	H	C,F,G	H								
					77	H	C,G	H								
655.00	ROCK CR	HEADWATERS TO TRIANGLE RES	BLM		15	H	CF	H			P	P	P			X
					76	H	C,F,G	H								
656.01	LOUISA CR	HEADWATERS TO TRIANGLE RES	BLM		15	M	C	H			P	P	P			X
					73	H	G	H								
					74	H	F,G	H								
					76	M	C,F,G	M								
657.00	MEADOW CR	HEADWATERS TO ROCK CR	BLM		14	H	F,G	H			P	P	P			X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SWB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	15				H	H	C	C	H								
	57				L	L	C	C	L								
	73				H	H	FG	FG	H								
	74				H	H	FG	FG	H								
	76				H	H	C,F,G	C,F,G	H								
	77				M	M	C	C	M								
	77				M	M	G	G	H								
	14				H	H	C,F,G	C,F,G	H								
	15				H	H	C	C	H								
	56				M	M	C	C	H								
	57				M	M	C	C	M								
	74				H	H	FG	FG	H								
	76				H	H	C,F	C,F	H								
	77				M	M	C	C	M								
	15				L	L	C	C	L								
	15				H	H	C	C	M								
	51				H	H	B,C,R	B,C,R	H								
	51				H	H	G,O	G,O	M								
	57				H	H	B,C,R	B,C,R	H								
	57				H	H	O	O	M								
240	781.00	BOISE R, M FK	WILDERNESS BOUNDARY to ARRO	IDL	L	L	C	C	L	X	X	P	X	X	N	N	X
250	576.00	WOOD CR	HEADWATERS to WILLOW CR (T	BFO-DEQ	M	M	C	C	M	S/T	S/T	N	N	N	N	N	X
	23				M	M	C	C	M								
	23				L	L	C	C	L								
	31				L	L	C	C	L								
	86				H	H	C	C	H								
	54				M	M	C	C	L								
251	593.00	SHAKE CR	HEADWATERS to BOISE R, S FK	USFS	L	L	C	C	L								
	22				M	M	C	C	M								
	31				M	M	C	C	M								
	32				H	H	C	C	M								
	43				M	M	C	C	M								
	83				M	M	C	C	M								
	84				L	L	K,L	K,L	L								
	32				M	M	A	A	M								
	57				L	L	C	C	L								
252	743.00	MORES CR	HEADWATERS to LUCKY PEAK RE	BFO-DEQ	M	M	C	C	M	S/T	S/T	S/T	P	S/T	S/T	S/T	X
	22				M	M	C	C	M								
	31				M	M	C	C	M								
	32				H	H	C	C	M								
	43				M	M	C	C	M								
	83				M	M	C	C	M								
	84				L	L	K,L	K,L	L								
	32				M	M	A	A	M								
	57				L	L	C	C	L								
260	728.00	BOISE R	BARBER DIVERSION to STAR (T	BFO-DEQ	M	M	C	C	M	X	S/T	S/T	P	S/T	S/T	S/T	X
	31				M	M	C	C	M								
	32				M	M	C	C	M								
	41				M	M	C,D,K	C,D,K	M								
	76				M	M	C	C	M								
	77				M	M	C	C	M								
	74				L	L	G	G	L								
240	781.00	BOISE R, M FK	WILDERNESS BOUNDARY to ARRO	IDL	L	L	C	C	L	X	X	P	X	X	N	N	X
250	576.00	WOOD CR	HEADWATERS to WILLOW CR (T	BFO-DEQ	M	M	C	C	M	S/T	S/T	N	N	N	N	N	X
	23				M	M	C	C	M								
	23				L	L	C	C	L								
	31				L	L	C	C	L								
	86				H	H	C	C	H								
	54				M	M	C	C	L								
251	593.00	SHAKE CR	HEADWATERS to BOISE R, S FK	USFS	L	L	C	C	L								
	22				M	M	C	C	M								
	31				M	M	C	C	M								
	32				H	H	C	C	M								
	43				M	M	C	C	M								
	83				M	M	C	C	M								
	84				L	L	K,L	K,L	L								
	32				M	M	A	A	M								
	57				L	L	C	C	L								
252	743.00	MORES CR	HEADWATERS to LUCKY PEAK RE	BFO-DEQ	M	M	C	C	M	S/T	S/T	S/T	P	S/T	S/T	S/T	X
	22				M	M	C	C	M								
	31				M	M	C	C	M								
	32				H	H	C	C	M								
	43				M	M	C	C	M								
	83				M	M	C	C	M								
	84				L	L	K,L	K,L	L								
	32				M	M	A	A	M								
	57				L	L	C	C	L								
260	728.00	BOISE R	BARBER DIVERSION to STAR (T	BFO-DEQ	M	M	C	C	M	X	S/T	S/T	P	S/T	S/T	S/T	X
	31				M	M	C	C	M								
	32				M	M	C	C	M								
	41				M	M	C,D,K	C,D,K	M								
	76				M	M	C	C	M								
	77				M	M	C	C	M								
	74				L	L	G	G	L								
240	781.00	BOISE R, M FK	WILDERNESS BOUNDARY to ARRO	IDL	L	L	C	C	L	X	X	P	X	X	N	N	X
250	576.00	WOOD CR	HEADWATERS to WILLOW CR (T	BFO-DEQ	M	M	C	C	M	S/T	S/T	N	N	N	N	N	X
	23				M	M	C	C	M								
	23				L	L	C	C	L								
	31				L	L	C	C	L								
	86				H	H	C	C	H								
	54				M	M	C	C	L								
251	593.00	SHAKE CR	HEADWATERS to BOISE R, S FK	USFS	L	L	C	C	L								
	22				M	M	C	C	M								
	31				M	M	C	C	M								
	32				H	H	C	C	M								
	43				M	M	C	C	M								
	83				M	M	C	C	M								
	84				L	L	K,L	K,L	L								
	32				M	M	A	A	M								
	57				L	L	C	C	L								
252	743.00	MORES CR	HEADWATERS to LUCKY PEAK RE	BFO-DEQ	M	M	C	C	M	S/T	S/T	S/T	P	S/T	S/T	S/T	X
	22				M	M	C	C	M								
	31				M	M	C	C	M								
	32				H	H	C	C	M								
	43				M	M	C	C	M								
	83				M	M	C	C	M								
	84				L	L	K,L	K,L	L								
	32				M	M	A	A	M								
	57				L	L	C	C	L								
260	728.00	BOISE R	BARBER DIVERSION to STAR (T														

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB
 SEG # PNR# # NAME BOUNDARIES

SEG #	PNR# #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
731.00		INDIAN CR	NEW YORK CANAL to BOISE R	BFO-DEQ	12 M 14 M 16 M 30 M 41 M 60 M	A.C.D A.C.D A.C.D C.K	M M M M		S/T	S/T	S/T	S/T	S/T	P	S/T	X
732.00		INDIAN CR	HEADWATERS to NEW YORK CANA	BFO-DEQ	12 M 14 M 15 M	A.C A.C A.C	M M M		S/T	N	N	N	S/T	S/T	S/T	X
270	727.00	BOISE R	STAR (TOWN) to NOTUS (Town)	BFO-DEQ	12 M 14 M 16 M 30 M 70 M	A.C.D A.C.D A.C.D	M M M		S/T	P	S/T	P	S/T	S/T	S/T	X
733.00		MASON CR	HEADWATERS to BOISE R	BFO-DEQ	12 H 14 H 16 H	A.C.D A.C.D A.C.D	H H H		N	S/T	P	N	N	P	S/T	X
271	1.00	TENMILE CR	HEADWATERS to FIFTEENMILE C	BFO-DEQ	12 M 14 M 16 M 32 M 41 M 43 M	A.C.D A.C.D A.C.D C C C	M M M M M M		S/T	N	N	N	S/T	S/T	S/T	X
734.00		FIVEMILE CR	HEADWATERS to BOISE R	BFO-DEQ	12 M 14 M 16 M 32 M 41 M 43 M	A.C.D A.C.D A.C.D C C C	M M M M M M		S/T	N	N	N	N	S/T	S/T	X
737.00		BLACKS CR	HEADWATERS to BLACK CR RES	BFO-DEQ	12 M 14 M 15 M	A.C.D A.C.D A.C.D	M M M		S/T	S/T	S/T	S/T	S/T	P	S/T	X
280	726.00	BOISE R	NOTUS (TOWN) to SNAKE R	BFO-DEQ	12 M 14 M 16 M 30 M 70 M	A.C.D A.C.D A.C.D	M M M		S/T	P	P	P	S/T	S/T	S/T	X
726.00		BOISE R	NOTUS (TOWN) to SNAKE R		11 L 12 H 15 L 15 L	A A.C A I	H H H M		X	P	P	P	P	P	P	X
730.00		SAND HOLLOW CR	HEADWATERS to SNAKE R	BFO-DEQ	12 M 14 M	A.C.D A.C.D	M M		S/T	P	P	P	P	P	P	X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
SWB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
30	664.00	SNAKE R	BOISE R to WEISER R	BFO-DEQ	16	M	A,C,D	M	S/T	S/T	P	S/T	P	S/T	S/T	X
323	887.00	PAYETTE R, N FK	UPPER PAYETTE L to FISHER C	IDFG	12	M	A,C	M	X	X	P	P	P	X	X	X
					13	M	A,C	M								
					14	M	A,C	M								
324	884.00	CASCADE RES		IDFG	20	M			X	X	P	S/T	P	X	X	X
					30	H										
					50	M			X	X	P	S/T	P	X	X	X
					10	H										
					20	H										
					30	H										
					40	M										
					50	M										
					60	H										
					70	H			X	X	X		X	P	P	X
					11	L	A	H								
					15	L	A	H								
					15	L	I	L								
					21	L										
					22	L										
					23	L			X	X	P		P	X	X	X
885.00		PAYETTE R, N FK	PAYETTE L to CASCADE RES	IDFG	10	M			X	X	P		P	X	X	X
					20	L										
					30	M										
					40	M										
					50	L										
					60	L										
					70	M			X	X	P		P	X	X	X
895.00		BOULDER CR	HEADWATERS TO CASCADE RES	IDFG	10	H										
					20	H										
					30	H										
					50	H										
					60	H										
895.00		BOULDER CR	HEADWATERS TO CASCADE RES	BFO-DEQ	14	H	ACDFG	H	S/T	P	P		P	S/T	S/T	X
					20	M										
898.00		MUD CR	HEADWATERS TO CASCADE RES	BFO-DEQ	12	H	A,C	H	S/T	P	P		P	P	P	X
					14	H	ACDIP	H								
899.01		GRANITE L		IDFG	10	M										
					20	M										
					30	M										
3241	896.00	LAKE FORK CR	LITTLE PAYETTE LK to CASCAD	IDFG	10	H			X	X	P		P	X	X	X
					20	M										
					30	M										
					60	H										

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	897.01	BROWNS POND		IDFG		H					P	P				X
3242	893.00	GOLD FORK R	FLAT CR to CASCADE RES	BFO-DEQ					N	S/T	S/T	S/T	S/T			X
	893.00	GOLD FORK R	FLAT CR to CASCADE RES	IDFG	10	H			X	X	P	P		X	X	
	956.00	SIXBIT CR		IDFG	10	L	A,C			P		P				X
325	881.00	PAYETTE R, N FK	SMITHS FERRY to BANKS	IDFG	10	M			X	X	P	P		X	X	
	882.01	PAYETTE R, N FK	CLEAR CR to SMITHS FERRY	IDFG	20	H										
	883.00	PAYETTE R, N FK	CASCADE RES DAM to CLEAR CR	IDFG	30	M			X	X	P	P		X	X	
	889.00	ROUND VALLEY CR		IDFG	50	M										
	890.00	CLEAR CR		IDFG	70	M										
	891.00	BIG CR		IDFG	10	H										
	892.00	BEAVER CR		IDFG	20	H										
	892.00	BEAVER CR		IDFG	30	M										
	892.00	BEAVER CR		IDFG	50	H										
	892.00	BEAVER CR		IDFG	10	H										
	892.00	BEAVER CR		IDFG	20	H										

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DONES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	30				H											
958.00		CURTIS CR		IDFG		L				P			P			X
20					H											
30					M											
330	690.00	BLACK CANYON RES		BFO-DEQ		M	A,C	M	S/T	S/T	S/T	N	S/T	S/T	S/T	X
	14				M		A,C	M								
	15				M		A,C	M								
	83				M		C,K	M								
	87				M		C,K	M								
331	696.00	ROBIE CR	HEADWATERS TO MORSE CR	BFO-DEQ		M	C	M	N	S/T	S/T	N	S/T	S/T	S/T	X
	14				M		C	M								
	15				M		C	M								
	22				M		C	M								
	23				M		C	M								
696.00		ROBIE CR	HEADWATERS TO MORSE CR	USFS		H	D	H		P						X
	14				H		D	H								
	15				H		D	H								
697.00		SOLDIER CR	HEADWATERS to SQUAW CR	USFS		H	D	H		P						X
	14				H		D	H								
	15				H		D	H								
	30				L											
340	695.00	BISSEL CR	HEADWATERS to PAYETTE R	BFO-DEQ		M	C	M	S/T	N	N	N	N	N	N	X
	14				M		C	M								
	15				M		C	M								
40	818.00	SNAKE R	WEISER (TOWN) to BROWNLEE D	BFO-DEQ		M	C	M	X	S/T	P	S/T	N	S/T	S/T	X
	12				M		C	M								
	14				M		C	M								
	15				M		C	M								
828.00		WARM SPRINGS CR	HEADWATERS to SNAKE R	BFO-DEQ		M	A,C	M	S/T	P	P	P	P	S/T	S/T	X
	12				M		A,C	M								
	15				M		A,C	M								
829.00		HOG CR	HEADWATERS to SNAKE R	BFO-DEQ		M	A,C	M	S/T	P	P	P	P	S/T	S/T	X
	12				M		A,C	M								
	15				M		A,C	M								
830.00		SCOTT CR	HEADWATERS to SNAKE R	BFO-DEQ		M	A,C	M	S/T	P	P	P	P	S/T	S/T	X
	12				M		A,C	M								
	15				M		A,C	M								
831.00		JENKINS CR	HEADWATERS to SNAKE R	BFO-DEQ		M	A,C	M	S/T	P	P	P	P	S/T	S/T	X
	12				M		A,C	M								
	15				M		A,C	M								
410	834.10	WEISER R	LITTLE WEISER R to GALLOWAY			L	A,C	H	X	X	P	P	P	P	X	X
	11				L		A,C	H								
	12				H		A,C	H								
	15				L		A,C	H								

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SWB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
834.10	WEISER R	LITTLE WEISER R to GALLOWAY	BFO-DEQ	11	M	A,C	M	N	S/T	S/T	S/T	S/T	S/T	S/T	S/T	X
835.00	WEISER R	HEADWATERS to LITTLE WEISER	IDFG	12	M	A,C	M	X	X	P	P	P	X	X	X	X
				15	M	A,C	M									
835.00	WEISER R	HEADWATERS to LITTLE WEISER	BFO-DEQ	10	H			N	S/T	S/T	N	S/T	S/T	S/T	S/T	X
				20	H											
				30	H											
				50	M											
				60	H											
				70	H											
848.00	PINE CR		IDFG	11	M	A,C	M			P	P	P				X
				12	M	A,C	M									
				14	M	A,C	M									
				15	M	A,C	M									
				22	M	C	M									
850.00	GOODRICH CR		IDFG	10	H					P	P	P				X
				20	M											
851.00	JOHNSON CR		IDFG	10	H					P	P	P				X
				20	M											
854.00	COTTONWOOD CR		IDFG	10	M					P	P	P				X
				20	M											
855.00	HORNET CR		IDFG	10	H					P	P	P				X
				20	M											
858.00	HORNET CR, NFK		IDFG	10	M					P	P	P				X
				20	M											
411	858.00	LOST CR	IDFG	10	H					P	P	P				X
				20	M											
413	845.00	WEISER R, LITTLE	BFO-DEQ	11	M	A,C	M	N	S/T	S/T	S/T	S/T	S/T	S/T	S/T	X
		INDIAN VALLEY to WEISER R		12	M	A,C	M									
				14	M	A,C	M									
				15	M	A,C	M									
				18	M	A,C	M									
				22	M	C	M									
845.00	WEISER R, LITTLE	INDIAN VALLEY to WEISER R	IDFG	10	H			X	X	P	P	P	X	X	X	X
				20	H											

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
SWB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DONES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
420	834.00	WEISER R	GALLOWAY DIVERSION to SNAKE	BFO-DEQ	30 60 70	H H H											
							ACDFG		S/T	S/T	S/T		P	S/T	S/T	X	
					12 15 70	M M M	A,C A,C	M M									
421	839.00	COVE CR	HEADWATERS to WEISER R	BFO-DEQ	12 14	M M	A,C A,C	M M	S/T	P	P		P	P	P	X	
					12 14 15 86	M M M M	A,C A,C A,C	M M M	S/T	N	N		N	P	P	X	
					15	M	C,I	H	X	X	X		X	P	X	X	
					12 14 15 86	M M M M	A,C A,C A,C	M M M	S/T	P	P		P	P	P	X	
					15 76	H H	C,F C,F,G	H H	X	P	P		P	X	X	X	
					12 14 15	M M M	A,C A,C A,C	M M M	S/T	N	N		N	P	P	X	
422	837.00	MANN'S CR	SPANGLER RES to WEISER R		12 15	H H	C C	H H									
					15 30 31	H L	C C	M H	X	P	P		X	P	P	X	
					12 21 23 54	M M M M	A,M C C C	M M M M									
50	817.00	SNAKE R	BROWNLEE DAM to OXBOW DAM	IDFG	10 20 30	H M M			X	P	X		X	X	X	X	
					10 20	H M			S/T	S/T	S/T		P				
					10 20	H M											
					10 20	H M											

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SWB SEG #	PFRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	POLLUTANT	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					30	M											
912.00	DEEP CR	WILDERNESS BOUNDARY to SNAK	USFS		15	L											X
					22	L											X
					31	H											
					52	H	B,O	H									
					53	M											
912.00	DEEP CR	WILDERNESS BOUNDARY to SNAK	BFO-DEQ		22	M	C	M		N	S/T	S/T	N	S/T	S/T		X
					52	H	B,O	H									
912.00	DEEP CR	WILDERNESS BOUNDARY to SNAK	USFS		15	L											X
					52	H	B,O	H									X
912.10	DEEP CR	HEADWATERS TO WILDERNESS BO	BFO-DEQ		22	M	C	M		N	S/T	S/T	N	S/T	S/T		X
819.00	INDIAN CR	HEADWATERS to SNAKE R	IDFG		10	M											X
					20	M											
					30	M											
					50	H											
905.00	DIVIDE CR	HEADWATERS to SNAKE R	IDFG		15	M	C	M									X
906.00	WOLF CR	HEADWATERS to SNAKE R	IDFG		15	M	C	M									X
907.00	GETTA CR	HEADWATERS to SNAKE R	IDFG		15	M	C	M									X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
10	1009.00	SALMON R	REDFISH CR to SALMON R, E F	USFS	15 31 71 76 77	H L C C C	C C C C C	H L L L L	X	X	P	X	X	X	X	X
	1009.00	SALMON R	REDFISH CR to SALMON R, E F	PFO-DEQ	41 51	H H	L C	L H	X	X	P	P	S/T	S/T	S/T	X
	1010.00	SALMON R	HELLROARING CR to REDFISH C	USFS	15 31 71 76 77	H L C C C	C C C C C	H L M M M	X	X	P	X	X	X	X	X
	1010.00	SALMON R	HELLROARING CR to REDFISH C	PFO-DEQ	14 77	L L	A C	L L	X	X	P	P	S/T	S/T	S/T	X
	1011.00	SALMON R	HEADWATERS to HELLROARING C	PFO-DEQ	14 77	L L	L L	L L	X	X	P	P	S/T	S/T	S/T	X
	1040.00	VALLEY CR	STANLEY CR to SALMON R	USFS	15 31 76 77	H M L L	C C H H	H M L L			P					X
	1040.00	VALLEY CR	STANLEY CR to SALMON R	PFO-DEQ	14 77	M M	A C	M M			P			S/T	S/T	X
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR	PFO-DEQ	14 77	M M	A C	M M			P			S/T	S/T	X
110	1035.00	SALMON R, YANKEE F	JORDAN CR to SALMON R	USFS	30 50 72 76	L H H H			X	X	P	P	P	X	X	X
	1035.00	SALMON R, YANKEE F	JORDAN CR to SALMON R	PFO-DEQ	53 54 57	H H H	C O	H H H			P			S/T	S/T	X
	1036.00	SALMON R, YANKEE F	HEADWATERS to JORDAN CR	USFS	20 30 50 51 72 76 53	L H H H H H L			X	X	P	P	P	X	X	X
	1036.00	SALMON R, YANKEE F	HEADWATERS to JORDAN CR	PFO-DEQ	20 30 50 51 72 76 53	L H H H H H L	C H H	H H H	X	X	P	P	P	X	X	X

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 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL						
130	1031.00	THOMPSON CR	HEADWATERS to SALMON R	PFO-DEQ	L	O	L		S/T	P			P	S/T		X						
140	1029.00	SQUAW CR	FOREST BOUNDARY to SALMON R	USFS	H	G	H		X	S/T			P	X		X						
									X													
20	1029.00	SQUAW CR	FOREST BOUNDARY to SALMON R	DEQ	M	C	M		X	P			P	S/T		X						
									X													
20	1030.00	SQUAW CR	HEADWATERS to FOREST BOUNDA	USFS	M	O	M		X				P			X						
20	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	BLM	L	A	L		S/T				N	S/T		X						
20	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	PFO-DEQ	M	C	M		S/T	P			P	S/T		X						
20	1017.00	GARDEN CR	FOREST BOUNDARY TO SALMON R	PFO-DEQ	M	A	M		P				P	S/T		X						
20	1019.00	WARM SPRINGS CR	HEADWATERS TO SALMON R	PFO-DEQ	H	A	H		P				P	S/T		X						
210	1099.00	PAHSIMEROI R	DOWNTON LANE to SALMON R	PFO-DEQ	M	A	M		X	P			P	S/T		X						
210	1100.00	PAHSIMEROI R	HEADWATERS to DOWNTON LANE	PFO-DEQ	M	A	M		X	P			P	S/T		X						

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1102.00	PATTERSON CR	FOREST BOUNDARY TO PAHSIMER	PFO-DEQ	14	M					P		P	S/T	S/T	X
					52	H	C	H								
					56	H	C	H								
	1102.00	PATTERSON CR	FOREST BOUNDARY TO PAHSIMER	BLM	15	M	C	M			N		N			X
					31	M	C	M								
					51	H	O	H								
					51	M	C	M								
					74	H	G	H								
					77	M	C	M			P		P	S/T	S/T	X
	1106.00	MORSE CR	FOREST BOUNDARY TO PAHSIMER	PFO-DEQ	14	M	A	M								
					77	M	C	M								
	1106.00	MORSE CR	FOREST BOUNDARY TO PAHSIMER	BLM	12	L	A	L			S/T		N			X
					15	H	C	H								
					31	L	C	L								
					74	H	G	H								
					77	H	C	H								
	1110.00	BIG CR	FOREST BOUNDARY TO PAHSIMER	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
30	864.00	SALMON R	PAHSIMERO/R to SALMON R, N	PFO-DEQ	12	M			X	X	P		P	S/T	S/T	X
					14	M										
					32	L										
					77	M										
310	1061.00	KIRTLEY CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	51	L	C	L			P		P	S/T	S/T	X
					57	L	O	L								
	1063.00	GEERTSON CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1065.00	BOHANNON CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1067.00	WIMPEY CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1070.00	SANDY CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1072.00	KENNY CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1077.00	MCDEVITT CR	BLM BOUNDARY TO LEMHI R	PFO-DEQ	21	M	C	M			P		P	S/T	S/T	X

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 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					H	C	H									
	1078.00	MCDEVITT CR	HEADWATERS TO BLM BOUNDARY	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1082.00	MILL CR	FOREST BOUNDARY TO LEMH/R	BLM	12	M	A	M			S/T		N	S/T	S/T	X
					14	M	C	M								
					15	H	C	M								
					74	H	G	H								
					77	M	C	M								
	1082.00	MILL CR	FOREST BOUNDARY TO LEMH/R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1084.00	LITTLE EIGHTMILE C	FOREST BOUNDARY TO LEMH/R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1086.00	BIG EIGHTMILE CR	FOREST BOUNDARY TO LEMH/R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M			S/T		N	S/T	S/T	X
	1086.00	BIG EIGHTMILE CR	FOREST BOUNDARY TO LEMH/R	BLM	12	M	A	M								
					14	M	C	M								
					15	H	C	H								
					31	L	C	L								
					74	H	G	H								
					77	M	C	M								
	1090.00	BIG TIMBER CR	FOREST BOUNDARY TO LEMH/R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1093.00	EIGHTEEN MILE CR	FOREST BOUNDARY TO LEMH/R	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
	1095.00	HAWLEY CR	FOREST TO EIGHTEENMILE CR	PFO-DEQ	14	M	A	M			P		P	S/T	S/T	X
					77	M	C	M								
40	989.00	DUMP CR	HEADWATERS TO SALMON R	PFO-DEQ	71	H	C	H			S/T		P	S/T	S/T	X
	989.00	DUMP CR	HEADWATERS TO SALMON R	USFS	53	L	C	L			P					X
					54	L	C	L								
					71	L	C	L								
					74	L	C	L								
					77	L	C	L								
					86	L	C	L								
410	991.00	HUGHES CR	HEADWATERS TO SALMON R, N F	PFO-DEQ	51	H	C	H			S/T		P	S/T	S/T	X
					71	H	C	H								
	995.00	CARMEN CR	FREEMAN CR TO SALMON R, N F	PFO-DEQ	14	M	A	M			S/T		P	S/T	S/T	X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT		POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
							M	C									
420	972.00	BIG DEER CR	BIG DEER CR, S FK to PANTHE	USFS							X	N	N	X	X	X	
	972.00	BIG DEER CR	BIG DEER CR, S FK to PANTHE	PFO-DEQ						S/T	N	N	N	N	N	X	
421	977.00	BLACKBIRD CR	HEADWATERS to PANTHER CR	USFS							N	N	N	X	X	X	
	977.00	BLACKBIRD CR	HEADWATERS to PANTHER CR	PFO-DEQ							N	X	X	N	N	X	
430	967.00	PANTHER CR	BLACKBIRD CR to SALMON R	USFS						X	X	P	N	X	X	X	
	967.00	PANTHER CR	BLACKBIRD CR to SALMON R	PFO-DEQ						X	S/T	N	N	X	N	X	
440	805.00	ELKHORN CR	HEADWATERS TO SALMON R, M F	IDFG							P	P	P			X	
	808.00	BEAR VALLEY CR	HEADWATERS TO WILDERNESS BO	IDFG							P	P	P				
	808.00	BEAR VALLEY CR	HEADWATERS TO WILDERNESS BO	IDFG							P	P	P			X	
	808.10	BEAR VALLEY CR	WILDERNESS BOUNDARY TO SALM								P	P	P				
441	773.00	CROOKED CR	HEADWATERS (MINES) TO BIG C	IDFG							S/T	S/T	P			X	
4411	775.00	MONUMENTAL CR	HEADWATERS to FALL CR	BFO-DEQ						N	S/T	S/T	S/T	S/T	S/T	X	

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SB
 SEG # PNR# # NAME BOUNDARIES

SEG #	PNR# #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	POLLUTANT	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
775.00		MONUMENTAL CR	HEADWATERS to FALL CR	IDFG						X	X	P	P	X	X	X	
					15	M	C	M									
					21	M											
					23	M	C	M									
					54	M	C	M									
775.00		MONUMENTAL CR	HEADWATERS to FALL CR	IDFG						X	X	P	P	X	X	X	
					30	H											
					50	H											
1348.00		SALMON R	CORN CR to CHERRY CR	IDFG						X	X	P	P	X	X	X	
					10	M											
					20	M											
					30	M											
					50	M											
1352.00		WARREN CR	HEADWATERS to WILDERNESS BO	USFS								P	P	X	X	X	
					31	L											
					53	H	H	H									
					54	H	H	H									
					87	L											
1352.00		WARREN CR	HEADWATERS to WILDERNESS BO	IDFG								P	P	X	X	X	
					10	L											
					20	L											
					30	M											
					50	H											
85.00		SALMON R, S FK	SECESH R to WILDERNESS BOUN	USFS						X	X	P	P	X	X	X	
					15	L	C	L									
					22	L	C	L									
					31	L	C	L									
					53	L											
					87	L											
915.00		SALMON R, S FK	STATION CR to SALMON R	USFS						X	X	P	P	X	X	X	
					15	L	C	L									
					22	L	C	L									
					31	L	C	L									
					53	L											
					87	L											
916.00		SALMON R, S FK	WILDERNESS BOUNDARY to STAT	USFS						X	X	P	P	X	X	X	
					15	L	C	L									
					22	L	C	L									
					31	L	C	L									
					53	L											
					87	L											
916.00		SALMON R, S FK	WILDERNESS BOUNDARY to STAT	IDFG						X	X	P	P	X	X	X	
					10	M											
					20	H											
					30	M											
					50	H											
918.00		SALMON R, S FK	BUCKHORN CR to SECESH R	BFO-DEQ						S/T	S/T	S/T	P	S/T	S/T	X	
					21	H	C	H									
					22	H	C	H									
					23	H	C	H									

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	POLLUTANT	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
918.00		SALMON R, S FK	BUCKHORN CR to SECESH R	IDFG	10 20 30 50	L H H M				X	X	P	P	X	X	X	X
918.00		SALMON R, S FK	BUCKHORN CR to SECESH R	USFS	22 31	L L	C C	L L		X	X	P	X	X	X	X	X
919.00		SALMON R, S FK	RICE CR to BUCKHORN CR	USFS	23	M	C	L		X	X	P	X	X	X	X	X
919.00		SALMON R, S FK	RICE CR to BUCKHORN CR	USFS	22 31	L L	C C	L L		X	X	P	X	X	X	X	X
919.00		SALMON R, S FK	RICE CR to BUCKHORN CR	IDFG	10 20 30 50	M H H M				X	X	P	P	X	X	X	X
919.00		SALMON R, S FK	RICE CR to BUCKHORN CR	BFO-DEQ	21 22 23 65	H H H M	C C C A,I,P	H H H M		S/T	S/T	S/T	S/T	P	S/T	S/T	X
920.00		SALMON R, S FK	HEADWATERS to RICE CR	BFO-DEQ	22	L	C	L		S/T	S/T	S/T	S/T	P	S/T	S/T	X
959.00		RICE CR	HEADWATERS TO SALMON R, S F	IDFG	10 20	M M						P	P	P			X
511	934.00	SALMON R, S FK E F	JOHNSON CR to SALMON R, S F	USFS	15 22 31 53	L L H M				X	X	P	X	X	X	X	X
935.00		SALMON R, S FK E F	SUGAR CR to JOHNSON CR	USFS	31 51 53	H H H	C C C	H H H		X	X	P	X	X	X	X	X
936.00		SALMON R, S FK E F	HEADWATERS to SUGAR CR	USFS	31 51	H H	C C	H H		X	X	P	X	X	X	X	X
950.00		SUGAR CR	HEADWATERS to SALMON R, S F	USFS	31 51	M H	C C	M H				P	.	.			X
511	940.00	JOHNSON CR	ICE HOLE CAMPGROUND to SALM	BFO-DEQ	22 23	M M	C C	M M		N	S/T	S/T	S/T	S/T	S/T	S/T	X

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
941.00		JOHNSON CR	HALF-WAY CR to ICE HOLE CAMP	BFO-DEQ					N	S/T	S/T	S/T	S/T	S/T	S/T	X
942.00		JOHNSON CR	HEADWATERS to HALFWAY CR	BFO-DEQ					N	S/T	S/T	S/T	S/T	S/T	S/T	X
512	929.00	SECESHR	LAKE CR to LOON CR	IDL					X	X	P	P	X	X	X	X
933.00		SUMMIT CR	HEADWATERS TO SECESHR	IDFG												X
60B	1329.00	GRAVE CR	HEADWATERS to ROCK CR	IDFG												X
1331.00		DEER CR	HEADWATERS to SALMON R	IDFG												X
1334.00		SLATE CR, LITTLE	HEADWATERS to SLATE CR (T1	IDFG												X
1338.00		RACE CR	HEADWATERS to SALMON R	IDFG												X
610	863.00	SALMON R, LITTLE	ROUND VALLEY CR to SALMON R	IDFG					X	X	P	P	X	X	X	X
864.00		SALMON R, LITTLE	HEADWATERS to ROUND VALLEY	IDFG												X
865.00		SOUJAW CR	HEADWATERS TO LITTLE SALMON	IDFG												X
869.00		ELK CR	HEADWATERS TO LITTLE SALMON	IDFG												X
874.00		GOOSE CR, E & W FK	PACKER STATE PARK TO LITTLE	IDFG												X

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WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	10				H											
	20				M											
875.00		GOOSE CR	HEADWATERS TO PACKER STATE	IDFG							P		P			X
875.02		BRUNDAGE RES		IDFG			F				P		P			X
876.00		SIXMILE CR	HEADWATERS TO LITTLE SALMON	IDFG							P		P			X
877.00		BIG CR	HEADWATERS TO LITTLE SALMON	USFS							P					X
877.00		BIG CR	HEADWATERS TO LITTLE SALMON	BFO-DEQ							S/T		P	S/T	S/T	X
877.00		BIG CR	HEADWATERS TO LITTLE SALMON	IDFG							P		P			X
878.00		MUD CR	HEADWATERS TO LITTLE SALMON	IDFG							P		P			X
878.00		MUD CR	HEADWATERS TO LITTLE SALMON	USFS							P					X
80	1321.00	CHINA CR	HEADWATERS TO SALMON R	IDFG							P		N			X
1323.00		DEER CR	HEADWATERS TO SALMON R	IDFG							P		N			X
1324.00		COTTONWOOD CR	HEADWATERS TO SALMON R	IDFG							P		N			X
1325.00		MALONEY CR	HEADWATERS TO SALMON R	LFO-DEQ							S/T		S/T	P	S/T	X
1326.00		DEEP CR	HEADWATERS TO SALMON R	LFO-DEQ							S/T		S/T	P	S/T	X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 SB
 SEG # PNRS # NAME BOUNDARIES SUBMITTED BY MAJOR SOURCE IMPACT POLLUTANT MAGNITUDE POLLUTANT MAGNITUDE DOKES AGRI WATER SUPPLY COLD WATER BIOTA WARM WATER BIOTA SALM SPAWN PRIM CONT RECR SEC CONT RECR MONIT EVAL

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOKES AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	11					L									
	15					L	CFGH	M							
	20					M									
	21					M									
	23					M									
	15	1327.00	RICE CR	IDFG		M	C	M		P		N			X
	23					M	C	M							
810	1328.00	ROCK CR	HEADWATERS to SALMON R	IDFG		M	C	M	X	P		N	X	X	X
	16					M	C	M							
	23					M	C	M							

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
110	2001.00	AMERICAN L	AMERICAN R DRAINAGE	BLM	51	H	L	H			N	N	N	N	N	X
					63	H	L	H								X
	2002.00	LUCAS L	AMERICAN R DRAINAGE	BLM	51	H	C,L	M			P	P	P	P	P	X
	1311.00	TAMMANY CR	HEADWATERS to SNAKE R	LFO-DEQ	10	H	A,I	H	S/T	S/T	P	X	N	N	P	X
					11	H										
					14	M										
					15	L	CFGH	H								
					30	H										
					31	H	F,H	H			P		N	N	P	X
					70	H										
	1315.00	CORRAL CR	HEADWATERS to SNAKE R	IDFG	15	M	C	M								
121	1296.77	PARACHUTE CR	HEADWATERS to PAPOOSE CR (T	IDFG	21	M	C	M			S/T	P	P	N	N	X
					23	M										
	1297.00	CANYON CR	HEADWATERS to LOCHSA R	IDFG	23	M	C	M			S/T	P	P	N	N	X
130	1280.00	MAGGIE CR	HEADWATERS to CLEARWATER R,	IDFG	15	M	C	M			P		N	N	N	X
131	1303.00	AMERICAN R	HEADWATERS to CLEARWATERS R	IDFG	15	L	C	L	X	X	S/T		P	X	X	X
					23	M	C	M								
					54	M	C	M								
					77	M	C	M								
	1305.01	AMERICAN R, E FK	HEADWATERS to AMERICAN R	IDFG	15	L	C	M			S/T	P	P	N	N	X
					23	M	C	M								
					54	M	C	M								
					77	M	C	M								
1311	1304.00	ELK CR, BIG	HEADWATERS to AMERICAN R	IDFG	15	M	C	M	X	X	P		P	X	X	X
					23	M	C	M								
					77	M	C	M								
1312	1306.00	RED R	HEADWATERS to CLEARWATER R,	IDFG	15	M	C	M	X	X	S/T		P	X	X	X
					23	M	C	M								
					54	M	C	M								
					77	M	C	M								
	1307.00	RED R, S FK	HEADWATERS to RED R	IDFG	21	M	C	M			S/T	P	P	N	N	X
					23	M	C	M								
132	1172.01	BIG CR	HEADWATERS to IR BOUNDARY	LFO-DEQ	10	L	A,I	M	S/T	S/T			P	N	S/T	X
					11	L										
					14	M										
					15	L										

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 CB
 SEG # PNRS # NAME

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
1281.00		CLEAR CR	HEADWATERS TO IR BOUNDARY	LFO-DEQ	20	M	CFGH	M								
	21				21	M										
	23				23	M										
	70				70	L	F,H	M								
	76				76	M										
	77				77	M										
	10				10	H	A,I	M	X		S/T		P	S/T		X
	11				11	M										
	14				14	M										
	15				15	L										
	20				20	M	CFGH	M								
	21				21	M										
	23				23	M										
	30				30	H	CFGH	H								
	31				31	H										
	50				50	L	C,H	L								
	51				51	L										
	70				70	H	F,H	M								
	76				76	H										
	77				77	M					S/T		P	S/T		X
1281.00		CLEAR CR	HEADWATERS TO IR BOUNDARY	NP TRIBE	11	M	ACDFG	M								
	11				11	M	H	M								
	14				14	M	CDFGH	M								
	14				14	M	I,P	M								
	15				15	M	CDFGH	M								
	15				15	M	I,P	M								
	71				71	H	G,H	H								
	76				76	H	F,G	H								
	83				83	M	G,H,K	M			P		N			X
	11				11	M	C	M								
	15				15	M	C	M								
1292.00		BUTCHER CR	HEADWATERS TO CLEARWATER R,	NP TRIBE	11	H	CDFGH	H					P	N	S/T	
	14				14	H	CDFHI	H								
	15				15	H	CDFHI	H								
	21				21	M	C,F,G	M								
	76				76	H	F,G,H	H								
1301.00		NEWSOME CR	HEADWATERS TO CLEARWATER R,	IDL	54	M	C	M					P			
	72				72	H										
	77				77	M	C	M								
1321	1291.00	THREEMILE CR	HEADWATERS TO CLEARWATER R,	LFO-DEQ	10	H	A,I	H								
	11				11	H										
	14				14	H										
	16				16	H										
	70				70	L	F,H	M								
	76				76	L										
	77				77	M										
1291.00		THREEMILE CR	HEADWATERS TO CLEARWATER R,	NP TRIBE	11	H	ACDFG	H								
	11				11	H	H,P	H								
	14				14	M	CDHIP	M								
	14				14	M	CDHIP	M								
	15				15	M	CDHIP	M								

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CB	SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
1322	1288.00		COTTONWOOD CR	HEADWATERS to CLEARWATER R,	NP TRIBE				A,D,I	M		X	P	N			S/T	X	X
		1288.10	STOCKNEY CR	HEADWATERS to COTTONWOOD CR	DEQ				ACDFG H,P CDHIP CDHIP AD,I CFGH	H H M M M H	P						P	X	
	1289.00		RED ROCK CR	HEADWATERS to COTTONWOOD CR	IDFG				C C	H H			P	N					X
	1290.00		COTTONWOOD CR, S F	HEADWATERS to COTTONWOOD CR	LFO-DEQ				A,I	H		X	S/T	P			S/T		X
140	1140.01		HOLES CR	HEADWATERS TO LITTLE CANYON	NP TRIBE				ACDGH M,N,O CDIP CDIP G K	H M M M L L	P	N	N	N	N		P		X
	1140.02		LONG HOLLOW CR	HEADWATERS TO LITTLE CANYON	NP TRIBE				ACDGH M,N,O C,D,I C,D,I C,K A,I C,K G C,G M,N	H H M M M M L L M	N	P	N	N	N		P		X
	1161.00		PINE CR	HEADWATERS to IR BOUNDARY	NP TRIBE				ACDFG H ACDHI ADHI ADHI F,G,H	H H M L L M	S/T	P	P	P	P		S/T	X	
	1161.00		PINE CR	HEADWATERS to IR BOUNDARY	LFO-DEQ				A,I	H		X	S/T	-	P	N	P		X
		10								H									
		11								H									
		14								M									
		15								L									
		70								L									
		76								L									
		77								M									
		11								H									
		11								H									
		14								M									
		15								L									
		70								L									
		76								L									
		89								L									
		11								H									
		11								H									
		14								M									
		16								M									
		41								M									
		42								M									
		43								M									
		71								L									
		76								L									
		82								M									
		11								H									
		11								H									
		14								M									
		15								M									
		14								M									
		15								M									
		14								L									
		16								L									
		76								M									
		10								H									
		11								H									
		14								M									
		15								L									
		20								L									
		21								L									
		23								L									
		70								L									
		76								L									

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1161.10		PINE CR	IR BOUNDARY to CLEARWATER R	DEQ	77	M					P		P			X
1162.00		BEDROCK CR	HEADWATERS to IR BOUNDARY	NP TRIBE	11	H	A,C	H					P	N	S/T	X
1162.00		BEDROCK CR	HEADWATERS to IR BOUNDARY		11	H	ACDFG	H		S/T						
					11	H	H	H								
					14	L	ADHI	L								
					15	L	ACDHI	L								
					16	L	ADHI	L								
					76	M	F,G,H	M		X	N		N	X		X
1162.00		BEDROCK CR	HEADWATERS to IR BOUNDARY		11	H	A,C	H								
1162.00		BEDROCK CR	HEADWATERS to IR BOUNDARY	LFO-DEQ	10	H	A,J	H		X	S/T		P	N	P	X
					11	M										
					14	M										
					15	L										
					20	L	CFGH	L								
					21	L										
					23	L	F,H	M								
					70	L										
					76	L										
					77	M										
1162.10		BEDROCK CR	IR BOUNDARY to CLEARWATER R	DEQ	11	H	A,C	H			N		N		P	X
1163.00		JACKS CR	HEADWATERS to CLEARWATER R	NP TRIBE	11	L	C,G	L		S/T			S/T	N	P	X
					15	L	CFHI	L								
1163.00		JACKS CR	HEADWATERS to CLEARWATER R	IDFG	21	M	C	M			P		N			X
1176.00		JIM BROWN CR	HEADWATERS to MUSSELLSHELL	LFO-DEQ	10	L	ACFI	L		S/T			S/T	P	S/T	X
					15	H	CFGH	H								
					21	H										
					23	H										
					70	L	F,H	L								
					77	M										
					77	M										
1177.00		MUSSELLSHELL CR	HEADWATERS to LOLO CR (T to	IDFG	15	M	C	M			P		P			X
					23	H	C	H								
1179.00		SIXMILE CR	HEADWATERS to CLEARWATER R	NP TRIBE	11	M	ACDGH	M			P		S/T	N	S/T	X
					11	M	M,N	L								
					14	M	CDHIP	M								
					15	M	CDHIP	M								
					21	M	CFGH	M								
					23	M	CGHK	M								
					71	M	C,G,H	M								
1179.00		SIXMILE CR	HEADWATERS to CLEARWATER R	IDFG	11	H	C	H			P		N			X
					23	M	C	M								

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
141	1180.00	LAWYER CR	HEADWATERS to IR BOUNDARY	LFO-DEQ						X	S/T		P	N	S/T	X
					10	H	AJ	H								
					11	M										
					14	L	C	L								
					15	L										
					20	L										
					21	L										
					23	L										
					30	M	CFGH	M								
					31	M	F,H	M								
					70	M										
					76	M										
					77	M										
	1180.00	LAWYER CR	HEADWATERS to IR BOUNDARY	NP TRIBE						X	S/T		S/T	N	X	X
					11	H	ACDG	H								
					11	H	M,N,P	L								
					14	M	CDHIP	M								
					15	M	CDHIP	M								
					21	L	CFGH	L								
					23	L	C,H	L								
					42	L	A,D,I	L								
					71	M	C,G,H	M								
					76	M	C,F,G	M								
					83	L	G,K	L	N	P	P		P	N	P	X
	1180.01	WILLOW CR	HEADWATERS TO LAWYERS CR	NP TRIBE												
					11	H	ACDGH	H								
					14	H	CDHIP	H								
					15	H	CDHIP	H								
					76	H	F,G,H	H								
					77	M	C,G	M								
	1180.10	LAWYER CR	IR BOUNDARY TO CLEARWATER R	LFO-DEQ						S	S/T		P	N	S/T	X
					10	H	AJ	H								
					11	M										
					14	L										
					15	L										
					20	L										
					21	L										
					23	L										
					30	M	CFGH	M								
					31	M	F,H	M								
					70	M										
					76	M										
					77	M										
	1180.10	LAWYER CR	IR BOUNDARY TO CLEARWATER R	NP TRIBE						X	S/T		S/T	N	X	X
					11	H	ACDG	H								
					11	H	M,N,P	L								
					14	M	CDHIP	M								
					15	M	CDHIP	M								
					21	L	CFGH	L								
					23	L	C,H	L								
					42	L	A,D,I	L								
					71	M	C,G,H	M								
					76	M	C,F,G	M								
					83	L	G,K	L								
	1181.00	SEVENMILE CR	HEADWATERS to LAWYERS CR	IDFG							P		N			X
					11	H	C	H								
					71	H	H	H								
	1181.00	SEVENMILE CR	HEADWATERS to LAWYERS CR	NP TRIBE						N	P		P	N	P	X

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 CB
 SEG # PNR# # NAME
 BOUNDARIES

SEG #	PNR# #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	POLLUTANT	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
142	1171.00	JIM FORD CR	HEADWATERS to IR BOUNDARY	DEQ	11	M	ACDGH	M									
					14	L	CDHIP	L									
					15	L	CDHIP	L									
					71		G,H	H									
					76		F,G	H									
					83		G,K	M									
					11	H	G	H		X	N			N	N	X	
					11	H	C	M									
					21	H	C	M									
	1171.00	JIM FORD CR	HEADWATERS to IR BOUNDARY	LFO-DEQ	10	M	A,J	M		S/T	S/T			P	P	X	X
					11	M											
					14	M											
					15	L											
					20	M	CFGH	M									
					21	M											
					23	M	CFGH	M									
					40	M											
					43	M	CFGH	M									
					70	M	F,H	M									
					76	L											
					77	M											
	1171.00	JIM FORD CR	HEADWATERS to IR BOUNDARY	NP TRIBE	11	L	ACDGH	L		N	N			P	N	P	X
					11	M	ACDG	M									
					14	L	ACGHI	L									
					14	L	P	L									
					14	M	ACHIP	M									
					15	L	ACHIP	L									
					21	M	CFGH	M									
					23	L	C,F,G	L									
					41	L	K	L									
					42	M	ADIP	M									
					42	H	ADIP	H									
					76	M						S/T		P	S/T	X	X
	1173.00	LOLO CR	ELDARADO CR TO CLEARWATER R	NP TRIBE	11	M	ACFGH	M									
					15	M	CDHI	M									
					21	H	CFGH	H									
					23	H	CGHK	H									
					53	M	C,H,K	M									
					54	M	C,H,K	M									
					71	L	C,G,H	L									
					76	M	C,F,G	M									
	1172.00	GRASSHOPPER CR	HEADWATERS to JIM FORD CR	DEQ	11	H	C	M		X	N			N	N	N	X
					21	H	C	M									
	1172.00	GRASSHOPPER CR	HEADWATERS to JIM FORD CR	LFO-DEQ	10	M	A,J	M		N	S/T			P	P	S/T	X
					11	M											
					14	M											
					15	L											
					20	M	CFGH	M									
					21	M											
					23	M											
					70	M	F,H	M									
					76	L											

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
143	1170.00	WHISKEY CR	HEADWATERS TO OROFINO CR	NP TRIBE	77	M					S/T	S/T	S/T	N	P	X
					11	M	ACDG	M								
					15	L	CDHI	L								
					21	M	C,F,G	M								
					23	M	C	M								
144	1215.00	OROGRANDE CR	HEADWATERS TO CLEARWATER R.	IDFG	21	H	C	H			P	N	N			X
					23	H	C	H								
					23	M	C	M								X
145	1188.00	LONG MEADOW CR	HEADWATERS TO DWORSHAK RES	LFO-DEQ	10	L	ACFI	L			S/T	S/T	S/T	P		X
					15	L	CFGH	H								
					20	H	CFGH	H								
					21	H										
					23	H										
					70	L	F,H	L								
					76	L										
					77	M										
					10	L	ACDFI	L	N	X	S/T	N	N	P	X	X
					15	L	CFGH	M								
					20	M	CFGH	M								
					21	M										
					23	M										
					80	M	A,I	M								
					87	M										
					10	L	ACFI	L								
					15	L	CFGH	H								
					20	H	CFGH	H								
					21	H										
					23	H										
					70	L	F,H	M								
					76	L										
					77	M										
					10	L	ACFI	L								
					15	L	CFGH	H								
					20	H	CFGH	H								
					21	H										
					23	H										
					70	L	F,H	M								
					76	L										
					77	M										
1451	1193.00	REEDS CR	HEADWATERS TO DWORSHAK RES	IDFG	23	H	C	H			P	N	N	X	X	X
1452	1189.00	ELK CR	HEADWATERS TO DWORSHAK RES	LFO-DEQ	10	L	ACFI	L								X
					15	L	CFGH	H								
					20	H	CFGH	H								
					21	H										
					23	H										
					70	L	F,H	M								
					76	L										

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 CB
 SEG # PNR # NAME

SEG #	PNR #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
150	1139.02	FIVEMILE CR	HEADWATERS TO CLEARWATER R	NP TRIBE	77	M					S/T			N	P	X
	1139.03	TOM TAHA	HEADWATERS TO CLEARWATER R	NP TRIBE	11	M	ACGH	M						N	P	X
					15	M	ACDHI	M			P					
	1197.00	BREAKFAST CR	HEADWATERS TO CLEARWATER R,	LFO-DEQ	11	L	ACGH	L								
					15	L	C.H.I	L								
					21	M	CDFGH	M								
					23	M	C.G.H	M								
					71	L	C.G	L								
					76	M	C	M								
					83	M	C	M					S/T	P		X
					20	H	CFGH	H								
					21	H										
					23	H										
					70	L	F.H	L								
					76	L										
					77	M										
	1198.00	FLOODWOOD CR	HEADWATERS TO BREAKFAST CR	LFO-DEQ	20	H	CFGH	H						P		X
					21	H										
					23	H										
					70	H	F.H	H								
					76	H										
					77	H										
	1199.00	STONY CR	HEADWATERS TO BREAKFAST CR	LFO-DEQ	20	H	CFGH	H						P		X
					21	H										
					23	H										
					70	H	F.H	H								
					76	H										
					77	H										
	1164.00	BIG CANYON CR	SIXMILE CANYON TO CLEARWATE	LFO-DEQ	10	M	A.I	M		X	S/T			P	X	X
					11	M										
					14	M										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					30	L	CFGH	L								
					31	L										
					32	L										
					60	M	A.I	M								
					65	M										
					70	M	F.H	M								
					76	M										
					77	M										
	1164.10	BIG CANYON CR	HEADWATERS TO SIXMILE CANYO	IDFG	21	M	C	M		X	P			P	X	X
	1164.10	BIG CANYON CR	HEADWATERS TO SIXMILE CANYO	NP TRIBE	11	H	ACDH	H		S/T	N			P	N	X
					11	H	F.M.N	L								
					14	M	CDHIP	M								
					15	L	G.H	L								
					21	L	C.F.G	L								
					23	L	C.H	L								

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 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
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 SEG # PNRS # NAME BOUNDARIES

CB SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	71					L	G,H	L								
	76					H	G,H	H			S/T		S/T	P	S/T	X
	11	1165.00	CANYON CR, LITTLE	NP TRIBE		H	ACDGH	H								
	11					H	M,N	L								
	15					M	CDHIP	M								
	21					M	C,G,H	M								
	11	1165.00	CANYON CR, LITTLE	IDFG		H	C	H			P		N			X
	21					M	C	M								
152	11	1160.00	COTTONWOOD CR	IDFG		M	C	M	X		P		P	X	X	X
	23					M	C	M								
	71					L	H	L								
	11	1160.00	COTTONWOOD CR	NP TRIBE		M	A,C,F	M	P		P		S/T	N	P	
	15					M	ACDHI	M								
	15					M	P	M								
	21					M	CFGH	H								
	23					L	C	L								
	76					M	C,F,G	M								
153	10	1150.00	POTLATCH R	LFO-DEQ		M	A,I	M	S/T	X	S/T		P	S/T	X	X
	11					M										
	14					M										
	15					L										
	20					M	CFGH	M								
	21					M										
	23					M										
	50					M	C	M								
	51					M										
	70					L	F,H	M								
	76					M										
	77					M										
	10	1151.00	POTLATCH CR, LITTL	LFO-DEQ		H	A,I	H			S/T		P	P	X	X
	11					H										
	14					M										
	15					L										
	20					L	CFGH	L								
	21					L										
	23					L										
	70					L	F,H	M								
	76					M										
	77					M										
	10	1152.00	POTLATCH CR, MIDL	LFO-DEQ		H	A,I	H			S/T		P	P	X	X
	11					H										
	14					M										
	15					L										
	20					L	CFGH	L								
	21					L										
	23					L										
	70					L	F,H	M								
	76					L										
	77					M										
	10	1153.00	BEAR CR, BIG	LFO-DEQ		H	A,I	H			S/T		P	P	X	X
	11					H										
	14					M										
	15					L										
	20					L	CFGH	L								
	21					L										
	23					L										
	70					L	F,H	M								
	76					L										
	77					M										
	10	1153.00	BEAR CR, BIG	LFO-DEQ		H	A,I	H			S/T		P	P	X	X

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	10					M	A,I	M								
	11					M										
	14					M										
	15					L										
	20					M	CFGH	M								
	21					M										
	23					M										
	70					L	F,H	M								
	76					M										
	77					M										
1155.00		PINE CR	HEADWATERS to POTLATCH R	LFO-DEQ			A,I	M			S/T		P	S/T		X
	10					M										
	11					M										
	14					M										
	15					L										
	20					M	CFGH	M								
	21					M										
	23					M										
	70					L	F,H	M								
	76					M										
	77					M										
1156.00		CEDAR CR	HEADWATERS to POTLATCH R	LFO-DEQ			A,I	M			S/T		P	S/T		X
	10					M										
	11					M										
	14					M										
	15					L										
	20					M	CFGH	M								
	21					M										
	23					M										
	70					L	F,H	M								
	76					M										
	77					M										
1157.00		POTLATCH R, E FK	HEADWATERS to POTLATCH R	LFO-DEQ			ACFI	M			S/T		S/T	P		X
	10					M										
	14					M										
	15					L										
	20					M	CFGH	M								
	21					M										
	23					M										
	70					L	F,H	M								
	76					M										
	77					M										
1158.00		RUBY CR	HEADWATERS to POTLATCH R, E	LFO-DEQ			ACFI	L			S/T		S/T	P		X
	10					L										
	15					L										
	20					H	CFGH	H								
	21					H										
	23					H										
	70					L	F,H	L								
	76					M										
	77					M										
1159.00		MOOSE CR	HEADWATERS to POTLATCH R	LFO-DEQ			ACFI	L			S/T		S/T	P		X
	10					L										
	15					M	CFGH	M								
	20					M										
	21					M										
	23					M										
	50					H	B,C	H								
	51					H										
	70					L	F,H	L								

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SEGS #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1167.00 LAPWAI CR SOURCE TO WINCHESTER L																
1551	1143.10	WINCHESTER L		DEQ	H	A,I	H		N	X	S/T		P	N	S/T	X
					10											
					11	H										
					14	H										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					70	M	F,H	M								
					76	M										
					77	M										
1143.10 WINCHESTER L																
				LFO-DEQ	H	A,I	H		N	X	P		X	P		X
					11	H	A	H								
					15	H	A	H								
1143.10 WINCHESTER L																
				LFO-DEQ	H	A,I	H		N	X	S/T		N	P	X	X
					10	H										
					11	H										
					14	H										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					80	M	A,I	M								
					87	M										
1143.10 WINCHESTER L																
				NP TRIBE	M	ACGM	M		X	X	S/T		N	S/T	S/T	X
					11	M										
					14	L	D,J	L								
					15	L	D,J	L								
					21	H	ACGH	H								
					23	H	C	H								
					43	L	H	L								
					85	H	A	H								
1147.00 MISSION CR HEADWATERS TO IR BOUNDARY (
156	1147.00	MISSION CR		LFO-DEQ	H	A,I	H		S/T	S/T			P	N	S/T	X
					10	H										
					11	M										
					14	M										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M	CFGHK	M								
					30	H										
					31	L	C	L								
					50	L										
					51	H	F,H	H								
					70	H										
					76	H										
					77	H										
1147.00 MISSION CR HEADWATERS TO IR BOUNDARY (
				NP TRIBE	H	A,C,D	H		S/T	S/T			S/T	N	P	X
					11	H	DGHM	M								
					14	M	ACDHI	L								
					14	M	P	L								
					16	H	ACDHI	H								
					21	L										
					23	L										
					51	L										
					71	L										
					76	M										
					77	M										

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WAFM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
160	1120.00	PALOUSE R	MEADOW CR to WASHINGTON LIN	DEQ	16	H	P	H	X	X	X	X	X	N	P	X
	1120.00	PALOUSE R	MEADOW CR to WASHINGTON LIN	LFO-DEQ	11	H	ABCDI	H	X	S/T	S/T	N	P	P	S/T	X
					14	H	EFGH	H								
					15	L		H								
					12	L	C	H								
					15	L	C	H								
					21	M	CFGH	M								
					23	M	CFGH	M								
					30	M	CFGH	M								
					32	M	CFGH	M								
					50	L	C,H	L								
					51	L	AL	L								
					60	L	AL	L								
					63	L		L								
					65	L		L								
					70	H	F,H	H								
					71	H	F,H	H								
	1121.00	PALOUSE R	HEADWATERS to MEADOW CR	LFO-DEQ	10	M	ACFI	M	P	X	X	S/T	X	X	X	X
					14	L		H								
					15	L	CFGH	H								
					20	H	CFGH	H								
					21	H		L								
					23	H		L								
					50	L	C	L								
					54	L	F,H	M								
					70	L	F,H	M								
					71	L		L								
					76	M		L								
					80	L	C	L								
					81	L		L								
	1122.00	DEEP CR	HEADWATERS to PALOUSE R	LFO-DEQ	10	H	ACFI	H	P		P	N	N	N	N	X
					11	M		M								
					14	M	CFGH	M								
					20	M	CFGH	M								
					21	M		M								
					23	M	F,H	M								
					70	M		M								
					76	M		M								
					77	M	C	L								
					80	L		L								
					81	L	ACFI	L			S/T	S/T	S/T	P	S/T	X
	1123.00	FLANNIGAN CR	HEADWATERS to PALOUSE R	LFO-DEQ	10	L	ACFI	L			S/T	S/T	S/T	P	S/T	X
					14	L		L								
					15	L	CFGH	M								
					20	M	CFGH	M								
					21	M		M								
					23	M	F,H	M								
					70	M		M								
					76	M		M								
					77	M	C	L								
					80	L		L								
					81	L	C	L								

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 CB BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT REGR	MONIT EVAL
1129.00		MEADOW CR	HEADWATERS to PALOUSE R	LFO-DEQ							S/T		P	S/T		X
	10					M	ACFI	M								
	14					L										
	15					M	CFGH	M								
	20					M										
	21					M										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								
	80					L										
	81					M	AC	L					P	P		X
1130.00		STRYCHNINE CR	HEADWATERS to PALOUSE R	DEQ												
	10					H	C,F									
	20					M	F									
	70					L										
1130.00		STRYCHNINE CR	HEADWATERS to PALOUSE R	LFO-DEQ									S/T	P		X
	10					L	ACFI	L								
	15					M	CFGH	M								
	20					H										
	21					H										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								
	80					L										
	81					L	ACFI	L					S/T	P		X
1131.00		LITTLE SAND CR	HEADWATERS to PALOUSE R	LFO-DEQ												
	10					L	ACFI	L								
	15					H	CFGH	H								
	20					H										
	21					H										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								
	80					L										
	81					L	ACFI	L					S/T	P		X
1131.00		LITTLE SAND CR	HEADWATERS to PALOUSE R	LFO-DEQ												
	20					H	C,F,G									
	77					M	C,F									
	81					M	C									
1131.00		LITTLE SAND CR	HEADWATERS to PALOUSE R	DEQ												
	10					L	AC									
	20					H	C,F,G									
	70					M	F,H									
	76					L	C									
1132.00		BIG SAND CR	HEADWATERS to PALOUSE R	DEQ												
	10					L	AC									
	20					H	C,F,G									
	70					M	F,H									
	76					L	C									
1132.00		BIG SAND CR	HEADWATERS to PALOUSE R	DEQ												
	10					L	ACFI	L								
	15					H	CFGH	H								
	20					H										
	21					H										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								
1132.00		BIG SAND CR	HEADWATERS to PALOUSE R	LFO-DEQ												
	10					L	ACFI	L								
	15					H	CFGH	H								
	20					H										
	21					H										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								
1132.00		BIG SAND CR	HEADWATERS to PALOUSE R	LFO-DEQ												
	10					L	ACFI	L								
	15					H	CFGH	H								
	20					H										
	21					H										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								
1132.00		BIG SAND CR	HEADWATERS to PALOUSE R	LFO-DEQ												
	10					L	ACFI	L								
	15					H	CFGH	H								
	20					H										
	21					H										
	23					L	F,H	M								
	70					M										
	76					L										
	77					M	C	L								

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
171	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R	LFO-DEQ	81	L	ACFI	L					P	S/T		X
					10	L										
					15	H	CFGH	H								
					20	H										
					21	H										
					23	L	C	L								
					50	L	F,H	M								
					54	L										
					70	L										
					76	M										
					77	M										
					80	L	C	L								
					81	L										
	1134.00	PALOUSE R, S FK	HEADWATERS to WASHINGTON LI	LFO-DEQ	10	H	AJ	H	P						N	X
					11	L										
					14	L										
					30	M	CFGH	M								
					32	M										
					70	H	F,H	H								
					71	H										
					72	H										
					80	L	C	L								
					81	L										
1711	1136.00	COW CR	HEADWATERS to WASHINGTON LI	LFO-DEQ	10	H	A,H	H	S/T						P	X
					14	H										
					70	H	F,H	M								
					76	H										
					77	H										
1712	1135.00	PARADISE CR	HEADWATERS to PALOUSE R	LFO-DEQ	10	H	AJ	H	P						N	X
					11	H										
					14	H										
					30	H	CFGH	H								
					32	H										
					40	H	CFGK	H								
					41	H										
					43	H										
					70	H	F,H	H								
					71	H										
					72	H										
					80	L	C	L								
					81	L										
20	1142.00	HATWAI CR	HEADWATERS to CLEARWATER R	LFO-DEQ	10	M	AJ	M	S/T	P			N	N	P	X
					15	M										
					70	M	F,H	M								
					76	M										
					77	M										
					11	M										
					10	H	AJ	H	S/T	P			P	N	S/T	X
					11	M										
					14	M										
					15	L										
					30	H	C,F,G	H								
					31	H										

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SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
	70					H	F,H	H								
	76					H										
	77					H										
1145.00		SWEETWATER CR	HEADWATERS to IR BOUNDARY (	NP TRIBE		M	A,C,D	H			P		P	N	S/T	X
	11					H	GHMN	M								
	14					M	ACDI	M								
	16					H	ACDHI	H								
	71					L	C	L								
	73					H	F,G,H	H								
	74					H	F,G,H	H								
	76					H	CFGH	H								
	60					L		L								
	62						A,D,I		S/T	P			P	N	S/T	X
1145.10		SWEETWATER CR	IR BOUNDARY to LAPWAI CR	LFO-DEQ			A,I	H								
	10					H										
	11					M										
	14					M										
	15					L										
	30					H	C,F,G	H								
	31					H										
	70					H	F,H	H								
	76					H										
	77					H										
1146.00		WEBB CR	HEADWATERS to IR BOUNDARY (	NP TRIBE		M	A,C,D	M		S/T			P		P	X
	11					L	CDHI	L								
	15					M										
	21					M	CDFGH	M								
	23					L	C,H	L								
	71					M	C,F,G	M								
	73					M	G	H								
	74					H		H								
	76					H	F,G,H	H								
	77					M										
1146.00		WEBB CR	HEADWATERS to IR BOUNDARY (	LFO-DEQ		H	A,I	H		S/T			P	N	S/T	X
	10					H										
	11					M										
	14					M										
	15					L										
	70					L										
	76					L	F,H	M								
	77					M										
1148.00		CATHOLIC CR	HEADWATERS to CLEARWATER R	NP TRIBE		H	A,C,D	H		S/T			P	N	P	X
	11					H	GHMN	M								
	14					L	ACHIP	L								
	15					L		L								
	16					M	ADPHI	M								
	76					M	CFGH	M								
	77					H	CDFG	H								
1148.00		CATHOLIC CR	HEADWATERS to CLEARWATER R	LFO-DEQ		M	A,I	M		S/T			N	N	P	X
	10					M										
	11					M										
	15					M										
	70					M	F,H	M								
	76					M										
	77					M										
210	1141.00	LINDSAY CR	IR BOUNDARY to CLEARWATER R	LFO-DEQ		H	A,I	H		S/T	P			N	N	X
	10					H										
	11															

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 CB PNRS # NAME BOUNDARIES

CB	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
810	1225.00	OSIER CR	HEADWATERS to MOOSE CR (T)	LFO-DEQ	14	H										
					18	H	CFGH	H								
					30	H										
					31	H										
					32	H										
					40	L	CFGK	L								
					60	L	A,I	M								
					65	M										
					70	H	F,H	H								
					76	H										
					77	H										
					80	H										
					82	L	ADKL	L								
					20	M	CFGH	M								
					21	M										
					23	M										
					70	L	FH	L								
					76	L										
					77	L										
													S/T	P		X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
10K	1362.00	KOOTENAI R	BONNERS FERRY to MONTANA LI	IDFG	74 77	H H			X	X	P		P	X	X	X
10P	1472.00	JOHNSON CR	HEADWATERS TO CLARK FORK	IDFG	21 23 86	H H M	C C G,H	H H M			P		P			X
	1478.00	TWIN CR	HEADWATERS to CLARKS FK	CFO-DEQ	20	M	A,C	M			S/T		P			x
10S	1481.00	COEUR D'ALENE R	YELLOWDOG CR to COEUR DALEN	IDFG	21 23 31 71 74 77	M M M G,H G,H G,H	C C G,H G,H G,H	M M M M M M	X	X	P		P	X	X	X
	1482.00	COEUR D'ALENE R	TEEPEE CR to YELLOW DOG CR	IDFG	21 23 31 71 74 77	M M M G,H G,H G,H	C C G,H G,H G,H	M M M M M M	X	X	P		P	X	X	X
	1495.00	STEAMBOAT CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	H H	C C	H H			P		P			X
	1504.01	FALLS CR	HEADWATERS TO SHOSHONE CR	IDFG	21 23	H H	C C	H H			P		N			X
	1505.00	DOWNNEY CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	H H	C C	H H			P		N			X
	1506.00	YELLOWDOG CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	H H	C C	H H			P		N			X
	1507.00	FLAT CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	M M	C C	M M			P		N			X
	1510.00	TRAIL CR	HEADWATERS TO TEEPEE CR	IDFG	21 23	M M	C C	M M			P		P			X
	1511.00	ELK CR, BIG	HEADWATERS TO TEEPEE CR (T	IDFG	21 23	M M	C C	M M			P		P			X
110K	21.00	CANUCK CR	HEADWATERS TO MOYIE R	IDFG	21 23	H H	C C	H H			P		N			X
	1395.00	MOYIE R	MOYIE FALLS DAM to KOOTENAI	CFO-DEQ	15	L	C	L	P	X	S/T		P	X	S/T	x

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 PB BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1398.00		DEER CR	HEADWATERS TO MOVIE R	IDFG	20 74	L H	C A,C,G	L L			P		N			X
1473.00		LIGHTNING CR	QUARTZ CR to CLARK FK	IDFG	21 23	H H	C C	H H		X	P		P	X	X	X
1473.01		LIGHTNING CR, E FK	HEADWATERS TO LIGHTNING CR	IDFG	21 23 86	H H H	C C G,H	H H H			P		P			X
1473.02		PORCUPINE CR	HEADWATERS TO LIGHTNING CR	IDFG	21 23 86	H H H	C C G,H	H H H			P		P			X
1473.03		RATTLE CR	HEADWATERS TO LIGHTNING CR	IDFG	21 86	H H	C G,H	H H			P		P			X
1475.00		SPRING CR	HEADWATERS TO LIGHTNING CR	IDFG	21 23 76	L L L	C C C	L L L			P		P			X
1476.00		WELLINGTON CR	FALLS TO LIGHTNING CR	IDFG	21 86	M H	C G	M H			P		P			X
1477.00		WELLINGTON CR	HEADWATERS TO FALLS	IDFG	21 86	M H	C G	M H			P		P			X
1500.00		PRITCHARD CR	HEADWATERS to COEUR D'ALENE	BLM	21 23 50 53 71 76	M M H H H M	C C C C H F	M M H H H M	X	X	P		X	X	X	X
1500.00		PRITCHARD CR	HEADWATERS to COEUR D'ALENE	IDL	53 54	M H	C,K	L			P		N	X	X	X
1500.00		PRITCHARD CR	HEADWATERS to COEUR D'ALENE	CFO-DEQ	20 53 54 65 77	L H H L H	C C,H C,H AD,I C,H	L M M L H	P	S/T	P		P	S/T	S/T	x
1500.01		TIGER CR	HEADWATERS TO PRITCHARD CR	BLM	21 23	M M	C C	M M			P					X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
1500.02		COUGAR CR	HEADWATERS TO PRITCHARD CR	BLM	50	H	C,H	H			P					X
1500.03		WESP CR	HEADWATERS TO PRITCHARD CR	BLM	21 23 50	M M H	C C C,H	M M H			P					X
1500.04		OPHIX CR	HEADWATERS TO PRITCHARD CR	BLM	21 23 50	M M H	C C C,H	M M H			P					X
1500.05		IDAHO CR	HEADWATERS TO PRITCHARD CR	BLM	21 23 50	M M H	C C C,H	M M H			P					X
1501.00		EAGLE CR	HEADWATERS TO PRITCHARD CR	IDL	53 54 77	M	C C	M H			P		N			X
1501.00		EAGLE CR	HEADWATERS TO PRITCHARD CR	CFO-DEQ	20 52 56	L H H	C B,H,O B,H,O	L H H			P		P	S/T	S/T	x
1501.00		EAGLE CR	HEADWATERS TO PRITCHARD CR	BLM	21 23 50 53	M M M H	C C C C,H	M M M H			P					X
120S	1485.00	COEUR D'ALENE R, N	HEADWATERS TO LAVERNE CR	IDFG	21 23	H H	C,G,H C,G,H	H H	X	X	P		P	X	X	X
1486.00		BUMBLEBEE CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	H H	C	H			P		P			X
1487.00		COPPER CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	M M	C C	M M			P		P			X
1488.00		LAVERNE CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	H H	C C	H H			P		P			X
1489.00		LEBIERG CR	HEADWATERS TO COEUR D'ALENE	IDFG	21 23	H H	C C	H H			P		N			X
1490.00		SKOOKUM CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	20	L	C	L			S/T		P			x

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 PB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1491.00		DECEPTION CR	HEADWATERS TO COEUR D'ALENE	IDFG		M	C	M			P		P			X
	21					M	C	M								
	23					M	C	M								
1492.00		BURNT CABIN CR	HEADWATERS TO COEUR D'ALENE	IDFG		M	C	M			P		P			X
	21					M	C	M								
	23					M	C	M								
1493.00		IRON CR	HEADWATERS TO COEUR D'ALENE	IDFG		M	C	M			P		P			X
	21					M	C	M								
	23					M	C	M								
1499.00		BEAVER CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ		L	C	L			P		P		S/T	X
	20					L	C	L								
	53					L	C,H,O	L								
	54					L	C,H,O	L								
140S	1515.00	COEUR D'ALENE R, S	OSBORNE (TOWN) to COEUR D'A	BLM		M	C	M	X		P		P		S/T	X
						H	C,F	M								
						H	O	M								
						H	H	H								
						H	H	H								
						H	F	M								
						M	C	M								
						H	O	H								
						L	C	L	N		N		N		N	X
						L	C	L								
						L	C	L								
						H	BCLO	H								
						H	H	H								
						M	B,O	H								
						M	C	M			P		P			X
						M	C	M								
						H	C	M								
						H	C	M								
						L	C	L								
						L	A,O	L								
						M	C	M			P		P			X
						M	C	M								
						L	C	L								
1515.01		POLARIS GULCH	HEADWATERS TO COEUR D'ALENE	BLM		M	C	M			P		P			X
	21					M	C	M								
	23					M	C	M								
	51					H	C	M								
	52					L	C	M								
	63					L	C	M								
	63					L	A,O	L								
1515.02		SLAUGHTERHOUSE DR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	M			P		P			X
	21					M	C	M								
	23					M	C	M								
	50					L	C	M								
1516.00		COEUR D'ALENE R, S	MULLAN (TOWN) to OSBORNE (T	BLM		M	C	M	X		P		P		X	X
	20					H	C,O	M								
	50					H	F	M								
	71					H	H	M								
	76					H	F	M								
	76					H	H	M								
	83					M	C	M								
	85					H	O	H								
						L	C	L	N		P		P		P	X
	41					L	C	L								
	43					L	C	L								
	50					H	BCLO	H								
	70					H	C,H,O	H								

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 PB
 SEG # PNRS # NAME BOUNDARIES

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
1516.02		TROWBRIDGE CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	M			P					X
1525.00		CANYON CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C,F	M		X	P				X	X
1525.00		CANYON CR	HEADWATERS TO COEUR D'ALENE	DEQ		M	H	M	P	S/T	P		P	S/T	S/T	X
1524.00		NINE MILE CR	HEADWATERS TO COEUR D'ALENE	DEQ		L	C	L	P	S/T	P		P	S/T	S/T	X
1524.00		NINE MILE CR	HEADWATERS TO COEUR D'ALENE	BLM		M	BCIO	M								
1524.00		NINE MILE CR	HEADWATERS TO COEUR D'ALENE	BLM		L	A,I	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		L	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		M	BCIO	M								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		L	A,I	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		L	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		H	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		H	B,F,O	M								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		M	B,O	M								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		H	F	M								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		H	H	H								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		L	C	L								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		H	BCHO	H								
1521.00		BIG CR	HEADWATERS TO COEUR D'ALENE	BLM		H	BCHO	H								
1519.00		PINE CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C,F	M								
1519.00		PINE CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	M								

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1519.00		PINE CR	HEADWATERS to COEUR D'ALENE		56	H	O	M	S/T	X	P	P	P	X	X	X
					57	H	O	M								
					71	H	F	M								
					71	H	H	M								
					76	H	C,F	M								
					76	H	H	M								
					83	H	C	M								
					85	H	O	M								
					20	L	C	L								
					52	M	BCHO	M								
					56	L	C,H	L								
1520.00		PINE CR, E FK	HEADWATERS to PINE CR	BLM	20	M	C,F	M			P					X
					50	M	C	M								
					56	H	O	M								
					57	H	O	M								
					71	H	F	M								
					71	H	H	M								
					76	H	C,F	M								
					76	H	H	M								
					83	H	C	M								
					85	M	O	M								
1520.00		PINE CR, E FK	HEADWATERS to PINE CR		20	L	C	L			P		P			X
					52	M	BCHO	M								
					56	M	BCHO	M								
1520.01		TRAPPER CR	HEADWATERS TO PINE CR, E FK	BLM	21	M	C,F	M			P					X
					23	H	C,F	M								
					50	L	C	M								
149S	1518.00	BEAR CR	HEADWATERS to COEUR D'ALENE	DEQ	20	L	C	L		X	P		P	X	X	x
					71	M	C,H	M								
					73	M	C,H	M								
20K	1363.00	KOOTENAI R	CANADA LINE to BONNERS FERR	IDFG	74	H	F,G,H	H		X	P		P	X	X	X
					77	H	F,G,H	H								
					73	M	C,F,G	M								
					74	M	C,F,G	M								
1378.00		CASCADE CR	HEADWATERS to MYRTLE CR (T)	IDFG	21	H	C,F	M			P					X
					23	H	C,F	M								
					76	H	C,F	M								
1378.00		CASCADE CR	HEADWATERS to MYRTLE CR (T)	BLM	71	H	G,H	H			P					X
1383.00		PARKER CR	COPELAND BOUNDARY TO KOOTEN	IDFG	71	H	G,H	H			P		P			X
1388.00		SMITH CR	HEADWATERS TO SMITH FALLS	IDFG	73	M	C,F,G	M			P		P			X
					74	M	C,F,G	M								

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL			
1535.01	BALDY CR	HEADWATERS TO LATOUR CR	BLM	87	L	I	L	P								X			
1535.02	LARCH CR	HEADWATERS TO LATOUR CR	BLM	15	L	I	L	P								X			
				15	L	C	M												
				21	M	C,F	M												
				23	H	C,F,H	M												
				76	M	F,H	M												
1535.10	LATOUR CR	R BOUNDARY to COEUR D'ALEN	BLM	15	L	I	L	P								X			
				15	L	C	M												
				21	M	C,F	M												
				23	H	C,F,H	M												
				76	M	F,H	M												
210P	PACK R	HWY 95 to PEND OREILLE LK	CFO-DEQ	10	M	AC	M	P	S/T	P				S/T	S/T	x			
				20	L	AC	L												
				32	M	ADJ	M												
				65	H	ACHM	M												
				87	L		M												
				21	H	C	H												X
				23	H	C	H												
				73	H	C,F,G	H					X	X	P	N	X	X	X	X
				74	H	C,F,G	H												
				1440.00	HOODOO CR	HOODOO L TO PEND OREILLE R	IDFG	11	M	C,F	H	P							
14	H		H																
1441.00	HOODOO CR	HEADWATERS TO HOODOO L	IDFG	11	M	C,F	H	P								X			
				14	H		H												
1538.00	CARLIN CR	HEADWATERS to COEUR D'ALENE		20	L	C	L	P	S/T	P				S/T	S/T	X			
				20	L	C	L												
1539.00	TURNER CR	HEADWATERS to COEUR D'ALENE		14	L	A,C,H	L	P	S/T	P				S/T	S/T	X			
				15	L	A,C,H	L												
				20	L		L												
1545.00	COUGAR CR	HEADWATERS to COEUR D'ALENE		14	L	A,C,H	L	P	S/T	P				S/T	S/T	X			
				15	L	A,C,H	L												
				20	L		L												
1546.00	KID CR	HEADWATERS to COEUR D'ALENE		11	L	A,C,H	L	P	S/T	P				S/T	S/T	X			
				14	L	A,C,H	L												
				15	L	A,C,H	L												

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
PB

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL				
1547.00	MICA CR	HEADWATERS to COEUR D'ALENE	IDFG	20	L	C	L	M												
				65	M	A,D,I	M	M												
				77	L	C,H	M	M				S/T	P	P	S/T	S/T	S/T	X		
				11	L	A,C,H	L	L												
				14	L	A,C,H	L	L												
				15	L	A,C,H	L	L												
				20	L	C	L	L												
77	L	C,H	M	M																
1548.00	ROCKFORD CR	HEADWATERS to COEUR D'ALENE	IDFG	11	M	A,C,H	M	M												
				14	M	A,C,H	M	M												
				15	M	A,C,H	M	M												
				20	L	C	L	L												
				77	L	C,H	L	L												
				11	M	C	M	M												
				1549.00	LAKE CR	HEADWATERS TO COEUR D'ALENE	IDFG	11	M	C	M									
1578.00	BENEWAH CR	HEADWATERS to COEUR D'ALENE	DEQ	11	M	ACDH	M	M												
				14	M	ACDH	M	M												
				15	M	ACDH	M	M												
				18	M	ACDH	M	M												
				20	M	A,C,H	M	M												
310K	1366.00	DEEP CR	IDFG	32	H	C	H	H	X	X	P	P	P	X	X	X				
				1370.00	SNOW CR	HEADWATERS TO DEEP CR	IDFG	21	H	C	H	H								
1371.00	CARIBOU CR	HEADWATERS TO SNOW CR	IDFG	21	H	C	H	H												
				23	H	C	H	H												
1373.00	TWENTYMILE CR	HEADWATERS TO DEEP CR	IDFG	21	H	C	H	H												
				23	H	C	H	H												
310P	1442.00	COCOLALLA CR	IDFG	11	M	C,F	H	H												
				14	H	C,F	H	H												
1442.10	COCOLALLA L	HEADWATERS to COCOLALLA L	IDFG	65	H	A,D	H	H												
				11	M	C,F	H	H												
1443.00	COCOLALLA CR	HEADWATERS to COCOLALLA L	IDFG	11	M	C,F	H	H												
				14	M	C,F	H	H												
1443.01	FISH CR	HEADWATERS TO COCOLALLA CR	BLM	15	L	I	L	L												
				21	M	C	M	M												
				23	M	C	M	M												
				76	H	F	L	L												
				21	M	F	L	L												

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
	1604.06	LITTLE BEAR CR	HEADWATERS TO MARBLE CR	BLM	15 21 23 76	M L L L	I C C F	M L L L			P						X
	1608.00	FISHHOOK CR	HEADWATERS TO ST JOE R	IDFG	21 23	H H	C C				P	N					X
	1613.00	SISTERS CR	HEADWATERS TO ST JOE R	IDFG	21 23	H H	C C	H H			P	N					X
	1615.00	PROSPECTOR CR	HEADWATERS TO ST JOE R	IDFG	21 23	M M	C C	M M			P	P					X
	1618.00	QUARTZ CR	HEADWATERS TO ST JOE R	IDFG	21 23	H H	C C	H H			P	N					X
	1620.00	BRUIN CR	HEADWATERS TO ST JOE R	IDFG	21 23	H H	C C	H H			P	N					X
	1622.00	GOLD CR	HEADWATERS TO ST JOE R	IDFG	21 23	H H	C C	H H			P	N					X
321S	1580.00	ST MARIES R	CLARKIA (TOWN) to MASHBURN	IDFG	14 14	M M	A F	M H	X	X	P	P		X	X		X
	1581.00	ST MARIES R	HEADWATERS to CLARKIA (TOWN)	IDFG	14 21 23	M M M	C,F C,F C,F	M M M	X	X	P	P		X	X		X
	1582.00	THORN CR	HEADWATERS TO ST MARIES R	IDFG	11 11 21 23	H H H H	A C C C	M H H H			P	P					X
	1583.00	ALDER CR	IR BOUNDARY TO ST MARIES R	IDFG	11 14 21 23	M M M M	A,C A,C C C	M M M M			P	P					X
	1584.00	JOHN CR	IR BOUNDARY TO ST MARIES R	IDFG	14 21 23	M M M	C C C	M M M			P	P					X
	1586.00	BEAVER CR	HEADWATERS TO ST MARIES R	IDFG	21 23	M M	C C	M M			P	P					X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1588.00	RENFRO CR	HEADWATERS TO ST MARIES R	IDFG	11	M	C	M	P					P			X
				21	M	C	M									
				23	M	C	M									
1589.00	TYSON CR	HEADWATERS TO ST MARIES R	IDFG	14	H	C,H	H	P					P			X
1590.00	CRYSTAL CR	HEADWATERS TO ST MARIES R	IDFG	11	M	C	M	P					P			X
1591.00	CARPENTER CR	HEADWATERS TO ST MARIES R	IDL	53	H	C	M	P					N			X
				54	H	C	H									
				77	H	C	H									
1591.00	CARPENTER CR	HEADWATERS TO ST MARIES R	IDFG	21	L	C	L	P					P			X
				23	L	C	L									
1593.00	EMERALD CR	HEADWATERS TO ST MARIES R	IDFG	14	H	C	H	P					P			X
				53	H	C	H									
				54	H	C	H									
				77	H	C	H									
1593.00	EMERALD CR	HEADWATERS TO ST MARIES R	IDL	53	H	C	H	P					N			X
				54	H	C	H									
				77	H	C	H									
1594.00	ST MARIES R, M FK	HEADWATERS TO ST MARIES R	IDFG	14	M	C,H	M	P					P			X
				21	M	C,H	M									
				23	M	C,H	M									
1595.00	MERRY CR	HEADWATERS TO ST MARIES R,	IDFG	21	H	C	H	P					P			X
				23	H	C	H									
1596.00	GOLD CENTER CR	HEADWATERS TO ST MARIES R,	IDFG	54	M	C,G,H	M	P					P			X
1596.01	FLEWSIE CR	HEADWATERS TO GOLD CENTER C	BLM	21	H	C	H	P								X
				21	H	F	M									
				23	H	C	H									
				76	M	F	M									
1596.02	GRAMPS CR	HEADWATERS TO GOLD CENTER C	BLM	15	H	I	L	P								X
				21	H	C	H									
				21	H	F	M									
				23	H	C	H									
				23	H	F	M									
				76	H	F	M									
1597.00	ST MARIES R, W FK	HEADWATERS TO ST MARIES R,	IDFG	14	H	C	H	P					P			X

APPENDIX A
 WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE
 PB
 SEG # PNRS # NAME

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL
1544.00		FERNAN CR	HEADWATERS to FERNAN L	DEQ	14	L	A,C,H	L	X	S/T	P		P	S/T	S/T	X
1545.00		FERNAN CR	HEADWATERS to FERNAN L	DEQ	15	L	A,C,H	L								
1546.00		FERNAN CR	HEADWATERS to FERNAN L	DEQ	20	M										
360S	1541.00	WOLF LODGE CR	HEADWATERS to COEUR D'ALENE		10	L			S/T	S/T	P		P	S/T	S/T	x
					14		ACHI	L								
					15		ACHI	L								
					20	M	C	L								
					77	H	C,H	M								
1542.00		CEDAR CR	HEADWATERS TO WOLF LODGE CR	IDFG	21	M	C	M			P		N			X
					23	M	C	M								
					31	M	C	M								
					31	M	H	H								
					55	L	K	L								
410S	1437.00	BRICKEL CR	WASHINGTON LINE TO SPIRIT L	IDFG	21	H	C	M			P		P			X
					23	H	C	M								
1438.10		SPIRIT L		IDFG	23	M	C	M	X	X	S/T		P	X	X	X
					43	M	AD	M								
					65	H	AD	H								
420S	1560.00	RATHDRUM CR	RATHDRUM (TOWN) TO TWIN LAK	IDFG	11	M	C	M			P		P			X
					32	M	A	M								
1561.00		FISH CR	WASHINGTON LINE TO TWIN LAK	IDL	11	M	AC	M			P		P	P		X
					14	M	AC	M								
					15	M	AC	M								
					21	M	C	M								
					23	M	C	M								
1561.10		TWIN LAKES	N OF RATHDRUM (TOWN)	IDFG	43	M	AD	M	X	X	P		N	X	X	X
					65	M	AD	M								
430S	1555.10	HAYDEN L		DEQ	43	M		H	X	X	S/T		P	X	X	X
					65	H	AD	H								
1557.00		MOKINS CR	HEADWATERS TO HAYDEN L	CFO-DEQ	11	H	A,C,H	H	S/T	N			N			x
					14	H	A,C,H	H								
					15	H	A,C,H	H								
					20	L	A,C,H	L								
440S	1562.10	HAUSER L		IDFG	65	H	AD	H	X	X	S/T		N	X	X	X
450S	1565.00	HANGMAN CR	IR BOUNDARY TO ID/WA LINE	DEQ	11	H	A,C	H	X	X	P					X
					15	L	I	H								X

APPENDIX A
WATERS NOT FULLY SUPPORTING AT LEAST ONE BENEFICIAL USE

SEG #	PNRS #	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANT	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT	EVAL
	1565.00	HANGMAN CR	IR BOUNDARY TO ID/WA LINE	IDFG	11	H	A.C	H	X	P				X		X	
	1566.00	HANGMAN CR	HEADWATERS to IR BOUNDARY	CFO-DEQ	11 14 15 20	H H H M	A.C.H A.C.H A.C.H A.C.H	M M M M	S/T	N							x
	1567.00	HANGMAN CR, LITTLE	HEADWATERS to WASHINGTON LI	DEQ	11 14 20				N	N					P		x 1
50S	1552.00	SPOKANE R	POST FALLS BRIDGE to WASHIN	IDFG	42 73 74	L H H	ALDI C.F.G C.F.G	L H H	X	X	P						X

APPENDIX B

This list contains the stream segments, lakes, and reservoirs which were assessed as fully supporting beneficial uses or with the status of beneficial use support unknown. Submitters were asked to provide information on those streams which were impacted by nonpoint source pollution. If no information was provided on a stream segment, DEQ could not distinguish between those segments that are fully supported (see Glossary in the Assessment Report) and those segments for which no information was provided and thus the status of use support is unknown. Segments with beneficial uses fully supported but 'potentially at risk' are indicated by an "S/T". The list contains the following information: stream segment number, name, and identifying boundary description, who submitted the information, sources of impact from nonpoint source pollution categories and subcategories, the magnitude of the impact, the pollutant resulting from the nonpoint source activity, the magnitude of the pollutant, whether the information submitted is based on monitored or evaluated data or both, and the status of beneficial use support. A list of NPS pollution categories and subcategories is included on pages B-2 and B-3. Beneficial uses which are specifically designated in the State Water Quality Standards or actually exist on streams not specifically designated and are fully supported are indicated with an "X".

Acronyms which were used to identify agencies which submitted information are identified here:

Shown in Appendix	Represents
BLM	U.S. Bureau of Land Management
EPA	Environmental Protection Agency
IDFG	Idaho Department of Fish and Game
HVCA	Hagerman Valley Citizens Alert
NP Tribe	Nez Perce Tribe
IDL	Idaho Department of Lands
SOC	Soil Conservation Commission
SCD	Soil Conservation District
SCS	Soil Conservation Service
USFS	U.S. Forest Service
BFO-DEQ	Boise Field Office-Division of Environmental Quality
CFO-DEQ	Coeur d'Alene Field Office-Division of Environmental Quality
LFO-DEQ	Lewiston Field Office-Division of Environmental Quality
PFO-DEQ	Pocatello Field Office-Division of Environmental Quality
TFO-DEQ	Twin Falls Field Office-Division of Environmental Quality
DEQ	Central Office-Division of Environmental Quality

If there is no entry under the category "Submitted By" then the information was provided by the Central Office of DEQ.

Major Nonpoint Source Pollution Categories and Subcategories

The following codes for the major nonpoint source pollution categories and subcategories were used to assess Idaho's streams, lakes and wetlands. These codes are based on U. S. EPA Guidelines for the Preparation of the 1988 State Water Quality Assessment (305(b)) Report, April 1, 1987, p. 19.

10 Agriculture

- 11: Non-irrigated crop production
- 12: Irrigated crop production
- 13: Specialty crop production (truck farming, orchards, etc.)
- 14: Pastureland treatment
- 15: Rangeland
- 16: Feedlots - all types
- 17: Aquaculture
- 18: Animal holding/management areas

20 Forest Practices

- 21: Harvesting, reforestation, residue management
- 22: Forest management
- 23: Road construction/maintenance

30 Construction

- 31: Highway/road/bridge
- 32: Land development

40 Urban Runoff

- 41: Storm sewers
- 42: Combined sewers
- 43: Surface runoff

50 Resource Extraction/Exploration/Development

- 51: Surface mining
- 52: Subsurface mining
- 53: Placer mining
- 54: Dredge mining
- 55: Petroleum activities
- 56: Mill tailings
- 57: Mine tailings

60 Land Disposal

- 61: Sludge
- 62: Wastewater
- 63: Landfills
- 64: Industrial land
- 65: On-site wastewater systems (septic tanks, etc.)
- 66: Hazardous wastes

70 Hydrologic/Habitat Modification

- 71: Channelization
- 72: Dredging
- 73: Dam construction
- 74: Flow regulation/modification
- 75: Bridge construction
- 76: Removal of riparian vegetation
- 77: Streambank modification/destabilization

80 Other

- 81: Atmosphere deposition
- 82: Waste storage/storage tank leaks
- 83: Highway maintenance and runoff
- 84: Spills
- 85: In-place contaminants
- 86: Natural
- 87: Recreation

90 Source Unknown

Primary Pollutant Codes

- A. nutrients, including nitrate
- B. pH
- C. siltation/sedimentation
- D. organic enrichment/DO
- E. salinity
- F. thermal modification
- G. flow alteration
- H. other habitat alterations
- I. pathogens (bacteria)

- J. radiation
- K. oil and grease
- L. unknown toxicity
- M. pesticides
- N. synthetic organics
- O. metals
- P. ammonia
- Q. chlorine
- R. other

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

BB SEGN0	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	MAGNITUDE	DOMES			COLD WATER			WARM WATER			SALM			PRIM			SEC		
									WATER SUPPLY	WATER SUPPLY	WATER SUPPLY	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA	BIOTA
10	253.00	BEAR R	WARDBORO to ALEXANDER RES		11	M	C	M		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
					12	L																				
					15	L																				
	253.00	BEAR R	WARDBORO to ALEXANDER RES	IDL	11	M	C	M		S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	X		
					12	M	C	M																		
					14	M	C	M																		
					15	M	C	M																		
	273.00	BEAR R	WYOMING LINE to WARDBORO		11	M	C	M		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
					12	L																				
					15	L																				
	273.00	BEAR R	WYOMING LINE to WARDBORO	IDL	11	M	C	M		S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	X		
					12	M	C	M																		
					14	M	C	M																		
					15	M	C	M																		
110	274.00	THOMAS FORK CR	WYOMING LINE to BEAR R	IDL	11	M	C	M		S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	S/T	X		
					12	M	C	M																		
					14	M	C	M																		
					15	M	C	M																		
	278.00	DRY CR	HEADWATERS to THOMAS FK		11	M																		X		
					12	L																				
					15	L																				
	277.00	GIRAFFE CR	HEADWATERS to WYOMING BORDER		11	M																		X		
					12	L																				
					15	L																				
120	270.10	BEAR L			15	L																		X		
	270.10	BEAR L																								
	267.00	BLOOMINGTON CR	HEADWATERS to REFUGE		12	L																		X		
					15	L																				
	267.10	BLOOMINGTON LK			12	L																		X		
					15	L																				
20	153.00	BEAR R	WARDBORO to ALEXANDER RES		11	M	C	M		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
					12	L																				
					15	L																				
	255.00	BAILEY CR	HEADWATERS to BEAR R		10																			X		
	256.00	EIGHTMILE CR	HEADWATERS to BEAR R		10																			X		
	257.00	PEARL CR	HEADWATERS to BEAR R		10																			X		

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

BB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	257.00	PEARL CR	HEADWATERS to BEAR R	IDL							S/T					X
	258.00	STAUFFER CR	HEADWATERS to BEAR R			M	C	M								X
	259.00	COOP CR	HEADWATERS to STAUFFER CR			M	C	M								X
	262.00	MONTPELIER CR	HEADWATERS to BEAR R			M	C	M								X
	263.00	MONTPELIER RES														X
	264.00	MONTPELIER CR	HEADWATERS to MONTPELIER RES													X
	266.00	PARIS CR	HEADWATERS to BEAR R													X
	268.00	PARIS CR	HEADWATERS to BEAR R	IDL		M	C	M		S/T	S/T					X
210	260.00	GEORGETOWN CR	HEADWATERS to BEAR R			M	C	M		X	X		X	X		X
30	235.00	BEAR R	COVE POWER PLANT to ONEIDA R			M	C	M		X	X		X	X		X
	238.00	BEAR R	ALEXANDER DAM to COVE POWER			L	I	L		X	X		X	X		X
	238.00	BEAR R	ALEXANDER DAM to COVE POWER			M	C	M		X	X		X	X		X
	245.00	COTTONWOOD CR	HEADWATERS to BEAR R			L	I	L		X	X		X	X		X
	245.00	COTTONWOOD CR	HEADWATERS to BEAR R	IDL		M	C	M		S/T	S/T				S/T	X
	246.00	WILLIAMS CR	HEADWATERS to BEAR R			M	C	M								X
	247.00	TROUT CR	HEADWATERS to BEAR R			M	C	M								X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

BB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL		
																	CT	O
461	289.00	SAMARIA CR	HEADWATERS to MALAD R	IDL						S/T	S/T					X		
	289.00	SAMARIA CR	HEADWATERS to MALAD R		11	M	C	M									X	
					12	M	C	M										
					14	M	C	M										
					15	M	C	M										
	290.00	DEVIL CR	HEADWATERS to MALAD R		10													X
	290.00	DEVIL CR	HEADWATERS to MALAD R	IDL						S/T	S/T						X	
					11	M	C	M										
					12	M	C	M										
					14	M	C	M										
				15	M	C	M											
290.00	DEVIL CR	HEADWATERS to MALAD R	DEQ	86	H	O											X	
				CT														
462	292.00	LITTLE MALAD R	HEADWATERS to MALAD R		11	H	C	H		X	X		X	X			X	
					11	H	A	M										
					12	L	C	H										
					12	L	A	M										
					15	L	C	H										
					15	L	A	M										
					15	L	I	L										
	292.00	LITTLE MALAD R	HEADWATERS to MALAD R		11	H	C	H		X	X		X	X			X	
					12	L	L	I										
					15	L	L	L										
292.00	LITTLE MALAD R	HEADWATERS to MALAD R	IDL						S/T	S/T		X	X				X	
				11	M	C	M											
				12	M	C	M											
				14	M	C	M											
				15	M	C	M											
292.00	LITTLE MALAD R	HEADWATERS to MALAD R	DEQ	86	H	O											X	
				CT														
294.00	WRIGHT CR	HEADWATERS to DANIELS RES																
294.00	WRIGHT CR	HEADWATERS to DANIELS RES	DEQ	86	H	O											X	
				CT														

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			SEC COAT RECR	MONIT EVAL
									WATER SUPPLY	WATER SUPPLY	WATER SUPPLY	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA		
	310.00	MEADOW CR	HEADWATERS TO BLACKFOOT RES	DEQ	51 52 CT	H H												X	
	315.00	DIAMOND CR	HEADWATERS TO BLACKFOOT RES	DEQ	51 52 CT	H H	O											X	
	320.00	LANES CR	HEADWATERS TO BLACKFOOT R	DEQ	CT		O											X	
10	3.00	SNAKE R, S FK	IRWIN to HEISE		11 12 15	M L L	C	M										X	
	3.00	SNAKE R, S FK	IRWIN to HEISE	SCC	11	H	C	H										X	
	4.00	SNAKE R, S FK	PALISADES DAM to IRWIN		11 12 15	M L L	C	M										X	
	4.00	SNAKE R, S FK	PALISADES DAM to IRWIN	SCC	11	H	C	H										X	
	5.00	PALISADES RES			11 12 15	M L L	C	M										X	
	6.00	ANTELOPE CR	HEADWATERS to SNAKE R, S FK		11	M	C	M										X	
	6.00	ANTELOPE CR	HEADWATERS to SNAKE R, S FK	IDL	11 12 14 15	M M M M	C C C C	M M M M		S/T	S/T							X	
20	26.00	SNAKE R	SNAKE R, S FK to WOODVILLE	IDL	11 12 14 15	M M M M	C C C C	M M M M		S/T	S/T		S/T	S/T				X	
	26.00	SNAKE R	SNAKE R, S FK to WOODVILLE	SCC	11	H	C	H										X	
	26.00	SNAKE R	SNAKE R, S FK to WOODVILLE		12 15	L L												X	
	27.00	SNAKE R, S FK	HEISE to MOUTH	SCC	11	H	C	H										X	
	27.00	SNAKE R, S FK	HEISE to MOUTH		12 15	L L												X	
	32.00	BIRCH CR	HEADWATERS to SNAKE R															X	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR IMPACT SOURCE MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	69.10	SNOW CR	HEADWATERS to HENRY'S FK		11 L 12 M										X
	75.00	ASHTON RES			11 L 12 L 15 L										X
	76.00	HENRY'S FORK	MESA FALLS to ASHTON RES		11 L 12 L 15 L										X
	77.00	HENRY'S FORK	R42ET11N,S23-24 to MESA FALL		11 L 12 L 15 L										X
	78.00	HENRY'S FORK	ISLAND PARK RES to R42ET11N,		11 L 12 L 15 L										X
231	93.00	BUFFALO R	CHICK CR to HENRY'S FORK		15 L										X
232	82.00	WARM R	WARM R SPRINGS to HENRY'S FO	SCC	11 H 12 H	C C	H H								X
	82.00	WARM R	WARM R SPRINGS to HENRY'S FO		11 M 15 L	C	M								X
	83.00	WARM R	HEADWATERS to WARM R SPRINGS		11 M 15 L	C	M								X
	83.00	WARM R	HEADWATERS to WARM R SPRINGS	SCC	11 H 12 H	C C	H H								X
	84.00	ROBINSON CR	YELLOWSTONE NP to WARM R		11 M	C	M								X
233	65.00	FALLS R	CONANT CR to HENRY'S FORK		11 L 12 L 15 L										X
	65.00	FALLS R	CONANT CR to HENRY'S FORK	SCC	11 H 12 H	C C	H H								X
	65.10	FALLS R	HEADWATERS to CONANT CR		11 L 12 L 15 L										X
	65.10	FALLS R	HEADWATERS to CONANT CR	SCC	11 H 12 H	C C	H H								X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	MAGNITUDE	DOMES			AGRI			COLD			WARM			PRIM			SEC			MONIT EVAL
									WATER SUPPLY																		
66.00		CONANT CR	FOREST BOUNDARY to FALLS RIV		11 15	H H	A,C A,J	H H																		X	
66.00		CONANT CR	FOREST BOUNDARY to FALLS RIV		11 12	L M																				X	
66.10		CONANT CR	HEADWATERS to FOREST BOUNDAR		11 12	L M																				X	
67.00		SQUIRREL CR	WYOMING LINE to CONANT CR		11 12	L M																				X	
234	114.00	TETON R	TETON DAM SITE to TETON FKS	SCC	11 12	H H	C C	H H																		X	
	114.00	TETON R	TETON DAM SITE to TETON FKS		11 12 15	M L L	C	M																		X	
	115.00	TETON R	BITCH CR to TETON DAM SITE	SCC	11 12	H H	C C	H H																		X	
	115.00	TETON R	BITCH CR to TETON DAM SITE		11 12 15	M L L	C	M																		X	
	116.00	TETON R	HIGHWAY 33 to BITCH CR	SCC	11 12	H H	C C	H H																		X	
	116.00	TETON R	HIGHWAY 33 to BITCH CR		11 12 15	M L L	C	M																		X	
	117.00	TETON R	TRAIL CR to HIGHWAY 33	SCC	11 12	H H	C C	H H																		X	
	117.00	TETON R	TRAIL CR to HIGHWAY 33		11 12 15	M L L	C	M																		X	
	118.00	TETON R	HEADWATERS to TRAIL CR	SCC	11 12	H H	C C	H H																		X	
	118.00	TETON R	HEADWATERS to TRAIL CR		11 12 15	M L L	C	M																		X	
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	L	C	L																			

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			MONIT EVAL
									AGRI WATER SUPPLY	COLD WATER SUPPLY	BIOTA	WATER BIOTA	WATER BIOTA	SPAWN	RECR	CONT	RECR	
					73	H	G	H										
					74	H												
					76	L	C,F	L										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	L	C	L										
					74	H	G	H										
					76		C,F	L										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	L	C	L										
					74	H	G,F	H										
					76		C,F	L										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		74	H	G	H										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	H	C	H										
					74	H	G	H										
					76	H	G	H										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	H	C	H										
					74	H	F,G	H										
					76	H	C,F,G	H										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	M	A	M										
					77	M	C	M										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		14	H	C	H										
					76	H	C,F	H										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		11	H	C	H										
					74	M	G	M										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		11	M	C	M										
					73	H	C,H	H										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		11	M	C	M										
					71	H	C	H										
	122.00	CANYON CR	HEADWATERS TO PINCOCK HOT SP		12	M	C	M										
					71	H	C	H										
	132.00	TETON CR	HIGHWAY 33 to TETON R															
235	113.00	TETON R, N & S FK	TETON FKS to HENRY'S FK	SCC	11	H	C	H										X
					12	H	C	H										
	113.00	TETON R, N & S FK	TETON FKS to HENRY'S FK		11	M	C	M										X
					12	M	C	M										
					15	L	I	L										
	113.00	TETON R, N & S FK	TETON FKS to HENRY'S FK															

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEGO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	119.00	MOODY CR	FOREST BOUNDARY to TETON R.		12	M	C	M								X
					14	M	A	M								
					71	M	C	M								
	119.00	MOODY CR	FOREST BOUNDARY to TETON R.	IDL	11	M	A	M		S/T	S/T					X
					12	M	A	M								
	120.00	MOODY CR	HEADWATERS to FOREST BOUNDAR		11	M										X
					12	M										
30	347.00	SNAKE R	FERRY BUTTE to AMERICAN FALL	SCC	12	H	C	H								X
	348.00	SNAKE R	BONNEVILLE COUNTY LN to FERR	SCC	12	H	C	H								X
310	36.00	RIRIE RES		SCC	11	H	C	H								X
	36.00	RIRIE RES		DEQ	CT		O									X
	37.00	WILLOW CR	GRAYS LK OUTLET to RIRIE RES	DEQ	CT		O									X
	37.00	WILLOW CR	GRAYS LK OUTLET to RIRIE RES	IDL	11	M	C	M		S/T	S/T					X
					12	M	C	M								
					14	M	C	M								
					15	M	C	M								
	37.00	WILLOW CR	GRAYS LK OUTLET to RIRIE RES	SCC	11	H										X
	37.00	WILLOW CR	GRAYS LK OUTLET to RIRIE RES		11	H										X
	38.00	WILLOW CR	CELLARS CR to GRAYS LK OUTLE		11	H	C	H								X
					15	L	I	L								
	38.00	WILLOW CR	CELLARS CR to GRAYS LK OUTLE	SCC	11	H										X
	39.00	WILLOW CR	HEADWATERS to CELLARS CR	IDL	11	M	C	M		S/T	S/T					X
					12	M	C	M								
					14	M	C	M								
					15	M	C	M								
					22	M	C	M								
	39.00	WILLOW CR	HEADWATERS to CELLARS CR	SCC	11	H										X
	39.00	WILLOW CR	HEADWATERS to CELLARS CR													X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONTR	SEC CONTR	MONIT EVAL
330	305.00	BLACKFOOT R	HEADWATERS to BLACKFOOT R													X
					11	L	C	L								
					12	L										
					15	L	I	L								
	305.00	BLACKFOOT R	HEADWATERS to BLACKFOOT R	DEQ	51	M										X
					52	M										
					CT		O									X
	303.00	BLACKFOOT R	BLACKFOOT DAM to WOLVERINE C	DEQ	11	H										X
					12	H										
	303.00	BLACKFOOT R	BLACKFOOT DAM to WOLVERINE C	IDL	11	M	C	M		S/T	S/T				S/T	X
					12	M	C	M								
					14	M	C	M								
					15	M	C	M								
	303.00	BLACKFOOT R	BLACKFOOT DAM to WOLVERINE C	SCC	11	H										X
	303.00	BLACKFOOT R	BLACKFOOT DAM to WOLVERINE C		11	M										X
					12	L										
					15	L										
	306.00	WOLVERINE CR	HEADWATERS to BLACKFOOT R		10											X
	306.00	WOLVERINE CR	HEADWATERS to BLACKFOOT R	IDL	11	M	C	M		S/T	S/T				S/T	X
					12	M	C	M								
					14	M	C	M								
					15	M	C	M								
					22	M	C	M								
	302.00	BLACKFOOT R	MAIN CANAL to SNAKE R		12	L										X
					15	L										
	302.00	BLACKFOOT R	MAIN CANAL to SNAKE R	SCC	11	H	C	H								X
					12	H	C	H								
	302.00	BLACKFOOT R	MAIN CANAL to SNAKE R	DEQ	11	H										X
					12	H										
					CT		O									
	302.01	LINCOLN CR	HEADWATERS to BLACKFOOT R		10											X
	302.10	BLACKFOOT R	WOLVERINE CR to MAIN CANAL		11	M										X
					12	L										
					15	L	I	L								
	302.10	BLACKFOOT R	WOLVERINE CR to MAIN CANAL		12	L										X
					15	L										
	302.10	BLACKFOOT R	WOLVERINE CR to MAIN CANAL	SCC	12	L										X
					15	L										

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
40	302.10	BLACKFOOT R	WOLVERINE CR to MAIN CANAL	DEQ	11 12	H H	C C	H H								X
	302.12	SAND CR	HEADWATERS TO BLACKFOOT R		11 12 CT	H H	O									X
	329.00	SAND CR	HEADWATERS to BLACKFOOT R	SCC	11 12	H H	C C	H H								X
	329.00	SAND CR	HEADWATERS to BLACKFOOT R		11 12 15	M L L	C I	M L								X
	346.00	AMERICAN FALLS RES		IDL	11 12 15	M M L	C C I	M M L		S/T				S/T	S/T	X
	325.00	PORTNEUF R	DIVERSION, T9SR37ES22 to MARS		11 12 15	M L L	C I	M L								X
	325.00	PORTNEUF R	DIVERSION, T8SR37ES22 to MARS	SCC	11 12	H H	C C	H H								X
	325.00	PORTNEUF R	DIVERSION, T9SR37ES22 to MARS	PFO-DEQ	11 14 77	M L L	C A C	M L L			S/T			S/T	S/T	X
	326.00	PORTNEUF R	LAVA HOT SPRINGS to PVC DIVE		11 12 15	M L L	C I	M L								X
	326.00	PORTNEUF R	LAVA HOT SPRINGS to PVC DIVE	SCC	11 12	H H	C C	H H								X
326.00	PORTNEUF R	LAVA HOT SPRINGS to PVC DIVE	PFO-DEQ	11 14 77	M L L	C A C	M L L			S/T			S/T	S/T	X	
327.00	PORTNEUF R	CHESTERFIELD CANAL to LAVA H		11 12 15	M L L	C I	M L								X	
327.00	PORTNEUF R	CHESTERFIELD CANAL to LAVA H	SCC	11 12	H H	C C	H H								X	
327.00	PORTNEUF R	CHESTERFIELD CANAL to LAVA H	IDL							S/T			S/T	S/T	X	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OF UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
328.00		PORTNEUF R	CHESTERFIELD RES to CHESTERF	SCC												X
328.00		PORTNEUF R	CHESTERFIELD RES to CHESTERF													X
328.00		PORTNEUF R	CHESTERFIELD RES to CHESTERF													X
330.00		PORTNEUF R	HEADWATERS to CHESTERFIELD R													X
330.00		PORTNEUF R	HEADWATERS to CHESTERFIELD R	SCC												X
340.00		DEMPSEY CR	HEADWATERS TO PORTNEUF	TF-FO DEQ												X
342.00		TWENTYFOURMILE CR	HEADWATERS to PORTNEUF R													X
342.00		TWENTYFOURMILE CR	HEADWATERS to PORTNEUF R	IDL												X
342.00		TWENTYFOURMILE CR	HEADWATERS to PORTNEUF R	TF-FO DEQ												X
343.00		TOPONCE CR	HEADWATERS to PORTNEUF R													X
411	335.00	MARSH CR	HEADWATERS to PORTNEUF R													X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
335.00		MARSH CR	HEADWATERS to PORTNEUF R	SCC												X
335.00		MARSH CR	HEADWATERS to PORTNEUF R	IDL	11 12	H H	C C	H H								
335.01		WALKER CR	HEADWATERS to MARSH CR		11 14 15	M M M	C C C	M M M		S/T	S/T					X
335.02		BELL MARSH CR	HEADWATERS to MARSH CR		10											X
335.02		BELL MARSH CR	HEADWATERS to MARSH CR	IDL	10											X
335.03		GOODENOUGH CR	HEADWATERS to MARSH CR		11 14 15	M M M	C C C	M M M		S/T	S/T					X
336.00		GARDEN CR	GARDEN CR GAP to MARSH CR		10											X
336.00		GARDEN CR	GARDEN CR GAP to MARSH CR	IDL	10											X
336.10		GARDEN CR	HEADWATERS to GARDEN CR GAP		11 14 15	M M M	C C C	M M M		S/T	S/T					X
337.00		HAWKINS CR	HEADWATERS to MARSH CR		10											X
337.00		HAWKINS CR	HEADWATERS to MARSH CR	IDL	10											X
337.10		HAWKINS RES			11 14 15	M M M	C C C	M M M		S/T	S/T					X
338.00		BIRCH CR	HEADWATERS to MARSH CR		10											X
339.00		CHERRY CR	HEADWATERS to BIRCH CR		10											X
420	324.00	PORTNEUF R	INTERSTATE 86 to IR BOUNDARY	SCC	11 12	H H	C C	H H								X
	324.00	PORTNEUF R	INTERSTATE 86 to IR BOUNDARY		11 12 15	M L L	C I I	M L L								X
	324.10	PORTNEUF R	JOHNY CR to INTERSTATE 86		11 12 15	M L L	C I I	M L L								X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			SEC CONT RECR	MONIT EVAL
									WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA	SPAWN RECR	CONT RECR			
324.10		PORTNEUF R	JOHNY CR to INTERSTATE 86	SCC	11 12	H H	C C	H H										X	
324.20		PORTNEUF R	MARSH CR to JOHNY CR		11 12 15	M L L	C I I	M L L										X	
324.20		PORTNEUF R	MARSH CR to JOHNY CR	SCC	11 12	H H	C C	H H										X	
324.30		PORTNEUF R	IR BOUNDARY to AMERICAN FALL		11 12 15	M L L	C I I	M L L										X	
324.30		PORTNEUF R	IR BOUNDARY to AMERICAN FALL	SCC	11 12	H H	C C	H H										X	
332.00		GIBSON JACK CR	HEADWATERS to PORTNEUF R		10													X	
333.00		MINK CR	HEADWATERS to PORTNEUF R		10													X	
333.00		MINK CR	HEADWATERS to PORTNEUF R	IDL	11 14 15	M M M	C C C	M M M		S/T	S/T							X	
334.00		RAPID CR	HEADWATERS to PORTNEUF R	IDL	11 14 15	M M M	C C C	M M M		S/T	S/T							X	
334.00		RAPID CR	HEADWATERS to PORTNEUF R		10													X	
349.00		BANNOCK CR	HEADWATERS to IR BOUNDARY		11 12 15	H L L	C I I	H L L										X	
349.00		BANNOCK CR	HEADWATERS to IR BOUNDARY	SCC	11 12	H H	C C	H H										X	
349.00		BANNOCK CR	HEADWATERS to IR BOUNDARY	DEQ	CT		O											X	
349.00		BANNOCK CR	HEADWATERS to IR BOUNDARY	PFO-DEQ	11	M	C	M			S/T							X	
349.01		MOONSHINE CR	HEADWATERS to IR BOUNDARY		10													X	
349.02		BANNOCK CR, W FK	HEADWATERS to IR BOUNDARY		10													X	
349.03		MOONSHINE CR	IR BOUNDARY to BANNOCK CR		10													X	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			SEC CONT RECR	MONIT EVAL
									WATER SUPPLY	AGRI WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	COLD WATER BIOTA	COLD WATER BIOTA	WARM WATER BIOTA	WARM WATER BIOTA	WARM WATER BIOTA		
	10																		
349.04		BANNOCK CR, W FK	IR BOUNDARY to BANNOCK CR																X
349.10		BANNOCK CR	IR BOUNDARY to AMERICAN FALL																X
349.10		BANNOCK CR	IR BOUNDARY to AMERICAN FALL	SCC															X
350.00		RATTLESNAKE CR	HEADWATERS to IR BOUNDARY	DEQ															X
350.00		RATTLESNAKE CR	HEADWATERS to IR BOUNDARY																X
350.10		RATTLESNAKE CR	IR BOUNDARY to BANNOCK CR																X
361.00		LAKE WALCOTT																	X
361.00		LAKE WALCOTT		SCC															X
361.00		LAKE WALCOTT		TF-FO DEQ															X
362.00		SNAKE R	MASSACRE ROCKS to LAKE WALCO	SCC															X
362.00		SNAKE R	MASSACRE ROCKS to LAKE WALCO																X
363.00		SNAKE R	EAGLE ROCK to MASSACRE ROCKS	SCC															X
363.00		SNAKE R	EAGLE ROCK to MASSACRE ROCKS																X
363.10		SNAKE R	AMERICAN FALLS DAM to EAGLE	SCC															X
363.10		SNAKE R	AMERICAN FALLS DAM to EAGLE																X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
																	12
	378.00	SNAKE R	MILNER DAM to MURTAUGH	SCC	12	H	C	H								X	
	378.00	SNAKE R	MILNER DAM to MURTAUGH		12	M	C	H								X	
	380.00	PIONEER RES		SCC	12	H	C	H								X	
	380.00	PIONEER RES			12	L										X	
	407.00	VINYARD CR	HEADWATERS to SNAKE R		15	L										X	
	445.00	GOOSE CR	OAKLEY RES to OAKLEY (TOWN)		10											X	
610	448.00	OAKLEY RES			11	L										X	
	447.00	GOOSE CR	HEADWATERS to OAKLEY RES		12	L										X	
	448.00	BIRCH CR	HEADWATERS to OAKLEY (TOWN)	TF-FO DEQ	15	L										X	
	449.00	TRAPPER CR	HEADWATERS to OAKLEY RES	TF-FO DEQ	15	H	ACDI	H								X	
	374.00	SNAKE R	CRYSTAL SPRINGS to UPR SALMO	TF-FO DEQ	17	M	AC	H								X	
	374.00	SNAKE R	CRYSTAL SPRINGS to UPR SALMO	HVCA	74	M	G	M								X	
	374.00	SNAKE R	CRYSTAL SPRINGS to UPR SALMO	SCC	12	H	AC	H								X	
	374.10	SNAKE R	LWR SALMON FALLS DAM to BLIS	TF-FO DEQ	16	H	ADIP	H								X	
					17	M	AC	H								X	
					72	L	C	L								X	
					74	M	G	M								X	
					12	M	AC	M								X	
					14	L	A	L								X	
					42	H	D	H								X	
					43	H	L	H								X	
					70	H	L	H								X	
					12	H	C	H								X	
					12	H	AC	H								X	
					14	M	A,I	M								X	
					16	H	ADIP	H								X	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER		WARM WATER		SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
											BIOTA	BIOTA	BIOTA	BIOTA					
374.10		SNAKE R	LWR SALMON FALLS DAM to BLIS	SCC	17 72 74	L M M	AC C G	M M H											X
376.00		TWIN FALLS RES			12	H	C	H											X
376.00		TWIN FALLS RES		TF-FO DEQ	12 18 74	H M M	AC,D A,I,P G	H M M		ST	ST	ST	ST	ST	ST				X
391.00		BRIGGS SPRING CR	HEADWATERS to SNAKE R	TF-FO DEQ	12 14 16 17 32 74 77	M M M M M M M	AC ACDIP ACDIP AC C G C	M M M L M M M		ST	ST	ST	ST	ST	ST				X
391.00		BRIGGS SPRING CR	HEADWATERS to SNAKE R		10														X
395.00		CLEAR SPRINGS	HEADWATERS to SNAKE R	HVCA	17 30 43 77	H M M H	C,D A,D H	H M H		ST	ST	ST	ST	ST	ST				X
395.00		CLEAR SPRINGS	HEADWATERS to SNAKE R		10														X
396.00		NIAGRA SPRINGS CR	HEADWATERS to SNAKE R	HVCA	17 30 43 74 77	H H M H H	C,D D G H H	H M H H		ST	ST	ST	ST	ST	ST				X
396.00		NIAGRA SPRINGS CR	HEADWATERS to SNAKE R	TF-FO DEQ	12 14 17 74	L H H H	A G AC	L H		ST	ST	ST	ST	ST	ST				X
396.00		NIAGRA SPRINGS CR	HEADWATERS to SNAKE R		10														X
398.00		CRYSTAL SPRINGS	HEADWATERS to SNAKE R	HVCA	17 30 40 74 77	H H M H H	C,D G H	H M H H		ST	ST	ST	ST	ST	ST				X
398.00		CRYSTAL SPRINGS	HEADWATERS to SNAKE R		10														X
398.00		ELLISON CR	HEADWATERS to SNAKE R		10														X
408.00		DRY CR	MEDLEY CR to SNAKE R		10														X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
392.00		DEEP CR	HIGHLINE CANAL to SNAKE R	SCC		H	C	H								X
392.00		DEEP CR	HIGHLINE CANAL to SNAKE R			H	C	H								X
393.00		DEEP CR	HEADWATERS to HIGHLINE CANAL			H	C	H								X
393.00		DEEP CR	HEADWATERS to HIGHLINE CANAL	SCC		H	C	H								X
393.00		DEEP CR	HEADWATERS to HIGHLINE CANAL	TF-FO DEQ		M	A,C	M			S/T			S/T		X
393.00		DEEP CR	HEADWATERS to HIGHLINE CANAL	DEQ		M	A,C,I	M								X
458.00		SALMON FALLS CR	SALMON FALLS DAM to SNAKE R			L	O									X
458.00		SALMON FALLS CR	SALMON FALLS DAM to SNAKE R	HVCA		H	A,C	H			S/T			S/T		X
458.00		SALMON FALLS CR	SALMON FALLS DAM to SNAKE R	TF-FO DEQ		M	A,C	M			S/T			S/T		X
459.00		SALMON FALLS RES				L										X
459.00		SALMON FALLS RES		TF-FO DEQ		M	A,C,D	M						S/T		X
460.00		SALMON FALLS CR	NEVADA LINE to SALMON FALLS			L										X
461.00		DEVIL CR	HEADWATERS to SALMON FALLS C	BLM		H	G	H								X
462.00		CEDAR CR	ROSEWORTH RES to SALMON FALL	BLM		H	C	M								X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

US9 SEG NO	FNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	464.00	CEDAR CR	HEADWATERS TO ROSEWORTH RES	BLM	77	M					S/T	S/T	S/T			X
	465.00	HOUSE CR	HEADWATERS TO ROSEWORTH RES	BLM	15 76 77	M M M	C H H	M M M			S/T	S/T	S/T			X
	468.00	SHOSHONE CR	COTTONWOOD CR to BIG CR	TF-FO DEQ	14 15 74 76 77	H H M H H	G C G H H	H H H H H			S/T	S/T	S/T			X
	471.00	COTTONWOOD CR	HEADWATERS to SHOSHONE CR	TF-FO DEQ	15 77	M M	A.C.D C	M M			S/T	S/T	S/T			X
830	385.00	RILEY CR	HEADWATERS to SNAKE R	HVCA	15 77	M M	A.C.D C	M M		S/T	S/T	S/T	S/T			X
	385.00	RILEY CR	HEADWATERS to SNAKE R	TF-FO DEQ	12 14 16 17 74	M M M M M	A.C ACDI ACDIP A.C	M M M M		S/T	S/T	S/T	S/T			X
	385.00	RILEY CR	HEADWATERS to SNAKE R		12 15	L L										X
840	384.00	BILLINGSLEY CR	HEADWATERS to SNAKE R		11 15	L L	A.C A.C	L L								X
	384.00	BILLINGSLEY CR	HEADWATERS to SNAKE R		12 15	L L										X
	384.00	BILLINGSLEY CR	HEADWATERS to SNAKE R	HVCA	12 14 16 17 32 40 74 76 77	H H H H H H H H H	ACDIP ADHP ACDFG INP CGH C.F.G	H H H H H H H		S/T	S/T	S/T	S/T			X
	384.00	BILLINGSLEY CR	HEADWATERS to SNAKE R	TF-FO DEQ	12 14 16 17 32	M M H M M	A.C A.C.P ACDP AC C	M M M M M		S/T	S/T	S/T	S/T			X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SECT NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			SEC								
									WATER SUPPLY	AGRI SUPPLY	WATER SUPPLY	COLD BIOTA	WATER BIOTA	WATER BIOTA	SPAWN RECR	CONT RECR	CONT RECR	MONIT EVAL								
850	481.00	BIG WOOD R	T1NR18ES35 to MAGIC RES		74	H	G	H																		
					77	M	C	M															X			
	482.00	BIG WOOD R	GLENDALE DIVERSION to T1NR18		12	L																				
					15	L																		X		
	482.00	BIG WOOD R	GLENDALE DIVERSION to T1NR18	TF-FO DEQ	12	L																				
					15	L																			X	
					12	M	A.C	M																		
					14	M	ACDI	M																		
	483.00	BIG WOOD R	HEADWATERS to GLENDALE DIVER		15	L																				
					15	L																				X
491.00	CROY CR	HEADWATERS to BIG WOOD R	TF-FO DEQ	52	L	B	L																			
				57	L	C.O	L																			X
491.00	CROY CR	HEADWATERS to BIG WOOD R	TF-FO DEQ	15	M	A.C	M																			
				31	M	C	M																			
				57	L	C	L																			
				74	M	G	M																			
480.00	MAGIC RES	RESERVOIR	TF-FO DEQ	12	M	A.C	M																			
				14	M	A.C.D	M																			
				16	M	ACDIP	M																			
				74	M	G	M																			
531.00	CAMAS CR	MACON FLAT BRIDGE to MAGIC R	TF-FO DEQ	12	L	A.C.D	L																			
				14	M	A.C.D	M																			
				16	M	ACDIP	M																			
531.00	CAMAS CR	MACON FLAT BRIDGE to MAGIC R	TF-FO DEQ	74	M	G	M																			
				77	M	C	M																			
				11	L		L																			
				12	L		L																			
534.00	WILLOW CR	HEADWATERS TO CAMAS CR	TF-FO DEQ	15	H	ACDIP	H																			
				31	M	C	M																			
				51	M	C	M																			
				74	M	G	M																			
537.00	SOLDIER CR	BASELINE to CAMAS CR	TF-FO DEQ	11	M	C	M																			
				12	L	A.C	L																			
				14	M	ACDI	M																			
				74	H	G	H																			

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	H	C	POLLUTANTS OF CONCERN	MAGNITUDE	DOMES			WARM			PRIM			SEC CONT RECR	MONIT EVAL		
											WATER SUPPLY	WATER SUPPLY	WATER SUPPLY	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA			WATER BIOTA	WATER BIOTA
870	475.00	BIG WOOD R	INTERSTATE 84 BRIDGE to SNAK		77	H				H												X	
					12	M	C			M													X
					15	L																	X
					12	H	C			H													X
					16	H	D			M													X
					30	H																	X
					70	H																	X
					74	H	G			H													X
					12	H	AC			H													X
					16	M	ACDIP			M													X
					74	H	G			H													X
					12	M	C			M													X
					15	L																	X
					12	H	C			H													X
					12	H	AC			H													X
					16	H	ACDIP			M													X
					74	M	G			M													X
					77	M	C			M													X
					12	H	C			H													X
					12	M																	X
					15	L																	X
					12	H	AC			H													X
					16	H	ACDIP			M													X
					74	M	G			M													X
					77	M	C			M													X
					12	M	C			M													X
					15	L																	X
					15	M																	X
					15	L																	X
					12	H	C			H													X
					12	H	C			H													X
					12	H	C			H													X
					12	M																	X
					15	L																	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

USB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
165.00		BIG LOST R	BIG LOST R, N FK to CHILLY B		31 77	L M	C	M								X
166.00		BIG LOST R, N FK	HEADWATERS to FORKS		12 15	L L										X
167.00		SPRING CR	SPRINGS to BIG LOST R	IDL	11 14 15	M M M	C C C	M M M		S/T	S/T					X
179.00		BIG LOST R, E FK	STARHOPE CR to FORKS		12 15	L L										X
180.00		BIG LOST R, E FK	HEADWATERS to STARHOPE CR		12 15	L L										X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
10	414.00	CJ STRIKE RES			12 15	L L			X	X	X	X	X	X	X	X
	415.00	SNAKE R	KING HILL to HWY 51 BRIDGE		12 15	L L										X
	419.00	BENNETT CR	HEADWATERS TO SNAKE R	BLM	15 74	M H	C G	M H			S/T		S/T			X
	421.00	COLD SPRINGS CR	HEADWATERS TO SNAKE R	BLM	15 74 76	M H H	C G H	L H M			S/T		S/T			X
	427.00	KING HILL CR	HEADWATERS TO WALKER DITCH	BLM	14 15	M M	C C	M M			S/T		S/T			X
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		15 32 77	M M L	A.C.I A.C C	M M M								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		14 77	M M	A C	M M								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		15 76	H H	C.F C.F	H H								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		15 74	M H	C G	M H								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		15 74 76	M H H	C G H	L H M								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		15 31 74	H M M	C C G	M H H								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		11 14 15 77	M M M L	C A A	M M M								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		11 12 14 18 77	M L M M M	C C A A C	M L M M M								
	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR		14 77	M M	A C	M M								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			SEC																																										
									WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER	WATER BIOTA	WATER BIOTA	WATER BIOTA	SALM SPAWN	CONT REGR	CONT REGR	CONT REGR	MONIT	EVAL																																								
1042.00	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR	15 31 76 77	H M L L	C C H H	H M L L	H M L L																																																				
																					14 77	L L	A C	L L																																				
																																								15 31 71 78 77	H L	C C C C C	H L M M M																	
																																																											14 15 31 32 51 77 83	M M M L L L L
1042.00	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR	15 31 71 78 77	H L	C C C C C	H L	H L M M M																																																				
																						14 15 31 32 51 77 83	M M M L L L L	C C C C C C C	M M M M L L L																																			
																																										15 31 71 78 77	H L	C C C C C	H L M M M															
1042.00	1042.00	STANLEY LAKE CR	HEADWATERS TO VALLEY CR	15 31 71 78 77	H L	C C C C C	H L	H L M M M																																																				
																						14 15 31 32 51 77 83	M M M L L L L	C C C C C C C	M M M M L L L																																			
																																										15 31 71 78 77	H L	C C C C C	H L M M M															
550.00	550.00	BRUNEAU R	NEVADA LINE TO HOT CR	12 15	L L																																																							
																					51 52 CT	H H	O																																					
																																								15 31 71 78 77	H L	C C C C C	H L M M M																	
																																																											14 15 31 32 51 77 83	M M M L L L L
550.00	550.00	BRUNEAU R	NEVADA LINE TO HOT CR	12 15	L L																																																							
																					51 52 CT	H H	O																																					
																																								15 31 71 78 77	H L	C C C C C	H L M M M																	
																																																											14 15 31 32 51 77 83	M M M L L L L
568.00	568.00	JARBIDGE R	NEVADA LINE TO BRUNEAU R	15	L																																																							
																					15 31	L M	C C	L M																																				
																																								15 31	L M	C C	L M																	
																																																										15 31	L M	C C
558.00	558.00	BRUNEAU R, E FK	HEADWATERS TO BRUNEAU R	12 15	L L																																																							
																					12 15	L L																																						
																																								12 15	L L																			
																																																										12 15	L L	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
669.00		SNAKE R	CASTLE CR to SWAN FALLS	SCC	12	H	C	H	X	X	X	X	X	X	X	X
670.00		SNAKE R	C J STRIKE RES to CASTLE CR	SCC	12	H	C	H	X	X	X	X	X	X	X	X
670.00		SNAKE R	C J STRIKE RES to CASTLE CR		12	M	C	M	X	X	X	X	X	X	X	X
674.00		SQUAW CR	HEADWATERS to SNAKE R		10											X
674.00		SQUAW CR	HEADWATERS to SNAKE R	BLM	14	H	F,G	H								X
					15	H	C,F,G	H								
					74	M	F,G	H								
					76	M	C,F	H								
675.00		HARDTRIGGER CR	HEADWATERS to SNAKE R	BLM	15	H	C,F	H								X
					78	H	C,F,G	H								
					77	H	C	H								
677.00		RABBIT CR	HEADWATERS to SNAKE R	BLM	15	H	C,F,G	H								X
678.00		SINKER CR	HIGHWAY 78 BRIDGE TO SNAKE R	BLM	78	H	C,F,G	H			ST		ST			X
684.00		BIRCH CR	HEADWATERS to SNAKE R	BLM	14	M	F,G	M								X
					15	M	C	H								
					74	H	F,G	M								
					76	M	C,F	M								
688.00		SHOEFLY CR	HEADWATERS TO SNAKE R	BLM	15	H	C,F,G	H								X
					78	H	C,F,G	H								
					77	H	G	H			ST		ST			X
687.00		POISON CR	HEADWATERS to SHOEFLY CR	BLM	14	H	F,G	H								X
					15	H	C,F	H								
					74	H	F,G	H								
					78	H	C,F,G	H								
					77	H	C,G	H								
825.00		DENNETT CR	HEADWATERS to SNAKE R	BFO-DEQ	10											X
825.00		DENNETT CR	HEADWATERS to SNAKE R	BFO-DEQ	15	L	C	L			ST		ST	ST	ST	X
					22	L	C	L								
676.00	210	REYNOLDS CR	DIVERSION to SNAKE R		12	L		L			X	X	X	X	X	X
					15	L	I	L								
676.10		REYNOLDS CR	HEADWATERS to DIVERSION	BLM					X	X	ST	ST	ST	X	X	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEGO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
																	H
	878.10	REYNOLDS CR	HEADWATERS to DIVERSION		15 78	H H	H C,F	H H									
220	73.00	SUCCOR CR	OREGON LINE to SNAKE R		12 15	L L	I	L	X	X	X	X	X	X	X	X	
	98.00	WILLOW CR	HEADWATERS TO SHERIDAN CR		12 15	M L	C	M	X	X	X	X	X	X	X	X	
	98.00	WILLOW CR	HEADWATERS TO SHERIDAN CR		15 76	H M	C C,F	H M									
	98.00	WILLOW CR	HEADWATERS TO SHERIDAN CR		53 77	L L	C C	L L									
	98.00	WILLOW CR	HEADWATERS TO SHERIDAN CR		14 77	M M	A C	M M									
	98.00	WILLOW CR	HEADWATERS TO SHERIDAN CR		14 15 61 73 74 76 77	H H L L M	F,G C C F,G F,G F,G F,G	H H L L H H H									
	98.00	WILLOW CR	HEADWATERS TO SHERIDAN CR		12 73 74	M H M	G G G	M H M									
	662.00	SODA CR	HEADWATERS to COW CR (T to O	BLM	15 76	H M	C C,F	H M			ST	ST				Y	
	671.10	SUCCOR CR	HEADWATERS to OREGON LINE		12 15	M L	I	L								X	
	671.10	SUCCOR CR	HEADWATERS to OREGON LINE	SCC	12	H	C	H								X	
230	63.00	BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		15 76 77	H H H	C,F,G C,F C	H H H									
	63.00	BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		15 76	M M	C C,F	M M									
	63.00	BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		14 14 15 15 74 76 77	H H H H H H H	C F,G C F F,G C,F,G C	M H H H H H H									

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		77	H	H	M								
					15	H	C	H								
					76	M	C,F	H								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		15	H	C,F	H								
					76	H	C,F	H								
					77	H	C,F	H								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		15	H	C,G	H								
					74	M	G	M								
					76	H	C,F,G	H								
					77	H	C	H								
					77	H	G	M								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		15	H	C,F,G	H								
					76	H	C,F,G	H								
					77	H	C,F,G	H								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		14	M	C	M								
					76	M	C,F	M								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		14	M	C	M								
					76	M	C,F	M								
63.00		BANNOCK JIM SLOUGH	SNAKE R, S FK TO HENRY'S FK		14	L	C	L								
					76	L	R	L								
611.00		OWYHEE R	IR BOUNDARY to OWYHEE R, SF		12	L				X	X		X	X		X
					15	L										
611.00		OWYHEE R	IR BOUNDARY to OWYHEE R, SF	DEQ	51	H										X
					52	H										
					CT		O									
612.00		OWYHEE R	NEVADA LINE to IR BOUNDARY		12	L				X	X		X	X		X
					15	L										
618.00		NICKLE CR	MUD FLAT ROAD TO MOUTH	BLM	15	M	C	M			ST					X
					76	M	C,F	M								
639.00		OWYHEE R	OWYHEE R, S FK to OREGON LIN		12	L				X	X		X	X		X
					15	L										
632.00		OWYHEE R, S FK	NEVADA LINE to OWYHEE R		14	M	F,G	M		X	X		X	X		X
					15	H	C,F,G	H								
					74	M	G	M								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEGN0	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD BIOTA	WATER BIOTA	WARM BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
	632.00	OWYHEE R, S FK	NEVADA LINE to OWYHEE R		76 77	H H	C.F.G C.F.G	H H										
2311	635.00	OWYHEE R, LITTLE	NEVADA LINE to OWYHEE R, S F		12 15	L L			X	X	X	X	X	X	X	X	X	
232	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		14 15 74 76 77	H H H H H	C.F.G C.F F.G C.F.G C.G	H H H H H										
	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		15 76 77	H H H	C.F.G C.F.G C	H H H										
	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		14 15 74 76 77	M H M H M	G C F G C.F.G	H H M H H										
	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		15 76 77	H H H	C.F.G C.F.G C.F	H H H										
	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		15 76 77	H H H	C.F C.F.G C.G	H H H										
	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		15 76 77	H H H	C C F C	H H M M										
	86.00	PORCUPINE CR	HEADWATERS TO ROBINSON CR		14 76	M M	C C	M M										
2321	641.00	OWYHEE R, N FK	HEADWATERS to OREGON LINE		12 15	L L											X	
	640.00	OWYHEE R, M FK	HEADWATERS to OREGON LINE		15 76 77	H H H	C.F.G C.G C.F.G	H H H										

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEGO NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
640.00		OWYHEE R, M FK	HEADWATERS TO OREGON LINE		12 15	L L										X	
233	648.00	JORDAN CR	WILLIAMS CR to OREGON LINE		11 12 15	L L L			X	X	X	X	X	X	X	X	
649.00		JORDAN CR	HEADWATERS TO WILLIAMS CR		11 12 15	L L L			X	X	X	X	X	X	X	X	
649.00		JORDAN CR	HEADWATERS TO WILLIAMS CR	DEQ	51 52 CT	H H O										X	
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		14 15 74 76 77	H H M H H	F.G C F.G C.F.G C.G	H H H H H									
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		15 76 77	H H M	C C.F.G C G	H H M H									
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		15 76	H H	C.F C.F.G	H H									
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		15 76 76	H H H	C C.F G	H M H									
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		15 76 77	H H H	C C.F.G C.F.G	H H H									
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		14 14 15 74 74 76 77 77	M M H M M H H H	F G C F M C.F.G C G	H M H H H H L M									
650.00		WILLIAMS CR	HEADWATERS TO JORDAN CR		14 15 15 51 56 74	M H H M M M	G C H C.H M F	H H M M M M									

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEGMO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	653.00	COMBINATION CR	HEADWATERS TO BOULDER CR	BLM	76 77	H H	C,F,G C,F,G	H H			S/T		S/T			X
	654.01	ROSE CR	HEADWATERS TO ROCK CR	BLM	15 76 76	H H H	C C,F G	H M H			S/T		S/T			X
	660.00	LOUSE CR	HEADWATERS TO JORDAN CR	BFO-DEQ	51 56 57	H H H	B,C,O B,C,O B,C,O	H H H			S/T		S/T	S/T	S/T	X
240	761.00	BOISE R, M FK	WILDERNESS BOUNDARY to ARROW		15	L			X	X	X	X	X	X	X	X
	761.00	BOISE R, M FK	WILDERNESS BOUNDARY to ARROW	DEQ	51 52 CT	H H	O									X
241	753.00	BOISE R, N FK	WILDERNESS BOUNDARY to BOISE		15	L			X	X	X	X	X	X	X	X
	754.00	BOISE R, N FK	HEADWATERS to WILDERNESS BOU		15	L			X	X	X	X	X	X	X	X
250	740.00	LUCKY PEAK RES			15	L			X	X	X	X	X	X	X	X
	741.00	ARROWROCK RES			15	L										X
	750.00	COTTONWOOD CR	HEADWATERS to ARROWROCK RES													
	750.00	COTTONWOOD CR	HEADWATERS to ARROWROCK RES	BFO-DEQ	22 23	M M	C C	M M			S/T		S/T	S/T	S/T	X
251	572.00	BOISE R, S FK	ANDERSON RANCH RES to ARROWR		11 12 15	L L L			X	X	X	X	X	X	X	X
	573.00	ANDERSON RANCH RES			11 12 15	L L L										X
	574.00	BOISE R, S FK	HEADWATERS to ANDERSON RANCH		11 12 15	L L L			X	X	X	X	X	X	X	X
	587.00	FALL CR	HEADWATERS to ANDERSON RANCH	BFO-DEQ	23	L	C	L			S/T		S/T	S/T	S/T	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
593.00		SHAKE CR	HEADWATERS to BOISE R, S FK	BFO-DEQ	51	M	C	M								
743.00		MORES CR	HEADWATERS to LUCKY PEAK RES		22	M	C	M	X	X	X	X	X	X	X	X
743.00		MORES CR	HEADWATERS to LUCKY PEAK RES	DEQ	51	H										X
					52	H										
					CT		O									
728.00		BOISE R	BARBER DIVERSION to STAR (TO		11	L			X	X	X	X	X	X	X	X
					12	L										
					15	L										
729.00		BOISE R	LUCKY PEAK DAM to BARBER DIV		11	L			X	X	X	X	X	X	X	X
					12	L										
					15	L										
729.00		BOISE R	LUCKY PEAK DAM to BARBER DIV		74	L	G	L								
727.00		BOISE R	STAR (TOWN) to NOTUS (Town)		12	M	C	M	X	X	X	X	X	X	X	X
					15	L										
727.00		BOISE R	STAR (TOWN) to NOTUS (Town)	SCC	12	H	C	H	X	X	X	X	X	X	X	X
727.00		BOISE R	STAR (TOWN) to NOTUS (Town)		12	H	C	H	X	X	X	X	X	X	X	X
					15	L										
1.00		TENMILE CR	HEADWATERS to FIFTEENMILE CR		12	M	C	M	X	X	X	X	X	X	X	X
					15	L										
1.00		TENMILE CR	HEADWATERS to FIFTEENMILE CR	SCC	12	H	C	H	X	X	X	X	X	X	X	X
1.00		TENMILE CR	HEADWATERS to FIFTEENMILE CR	DEQ	12	H										
					CT		M									
734.00		FIVEMILE CR	HEADWATERS to BOISE R		12	M	C	M								X
					15	L										
734.00		FIVEMILE CR	HEADWATERS to BOISE R	SCC	12	H	C	H								X
734.00		FIVEMILE CR	HEADWATERS to BOISE R	DEQ	12	H										X
					CT		M									
738.00		WILSON DRAIN	HEADWATERS TO INDIAN CR	BFO-DEQ												X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OF UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL				
280	728.00	BOISE R	NOTUS (TOWN) to SNAKE R		12	H	A,C	H												
					14	H	A,C	H												
					43	M	C,K	M												
					12	H	C	H	X	X		X	X							
					15	L														
30	728.00	BOISE R	NOTUS (TOWN) to SNAKE R	SCC	12	H	C	H	X	X				X	X					
					730.00	SAND HOLLOW CR	HEADWATERS to SNAKE R	11	L	C	H									
					246.00	WILLIAMS CR	HEADWATERS to BEAR R	12	M											
246.00	246.00	WILLIAMS CR	HEADWATERS to BEAR R		14	M														
					32	L														
					77	M														
					12	M	C	M												
					74	M	A	L												
246.00	246.00	WILLIAMS CR	HEADWATERS to BEAR R		12	H	ACDGH	H												
					74	M	G	M												
					11	L	A	L												
					12	L	A	L												
					14	M	C	M												
246.00	246.00	WILLIAMS CR	HEADWATERS to BEAR R		15	H	C	H												
					21	M	C	M												
					22	M	C	M												
					23	M	C	M												
					31	M	C	M												
246.00	246.00	WILLIAMS CR	HEADWATERS to BEAR R		32	L	C	M												
					74	M	G	M												
					77	M	G	M												
					76	M														
					74	M	G	M												
246.00	246.00	WILLIAMS CR	HEADWATERS to BEAR R		14	H	A	H												
					15	L	A	L												
					18	L	A	L												
					77	H	C	H												
					11	M	C	M												
664.00	664.00	SNAKE R	BOISE R to WEISER R		11	M	A	M												
					14	M	A	M												
					18	M	A	M												
					74	H	A	H												
					77	M	C	M												
					12	L			X	X			X	X						
					15	L														

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	MAGNITUDE	DOMES			WARM			PRIM			MONIT EVAL
									WATER SUPPLY	AGRI SUPPLY	WATER BIOTA	COLD WATER BIOTA	WATER BIOTA	WATER BIOTA	SALM SPAWN	CONT RECR	CONT RECR	
664.00		SNAKE R	BOISE R to WEISER R	SCC	12	H	C	H		X	X		X	X		X	X	
664.00		SNAKE R	BOISE R to WEISER R		12 15	M L	C	M		X	X		X	X		X	X	
310	710.00	PAYETTE R, S FK	WILDERNESS BOUNDARY to PAYET		15	L				X	X		X	X		X	X	
	710.00	PAYETTE R, S FK	WILDERNESS BOUNDARY to PAYET		11 12 15	L L L				X	X		X	X		X	X	
	710.00	PAYETTE R, S FK	WILDERNESS BOUNDARY to PAYET	BFO-DEQ	22 23 31 83	M M M M	C C C C	M M M M		S/T	S/T		S/T	S/T		S/T	S/T	
	711.00	PAYETTE R, S FK	HEADWATERS to WILDERNESS BOU		15	L				X	X		X	X		X	X	
	724.00	CANYON CR	HEADWATERS TO PAYETTE R, S F	BFO-DEQ	22 23 31 83	M M M M	C C C C	M M M M		S/T	S/T		S/T	S/T		S/T	S/T	
321	713.00	DEADWOOD R	DEADWOOD RES to PAYETTE R, S		15	L	C	L		X	X		X	X		X	X	
	714.00	DEADWOOD RES			15	L	C	L									X	
	715.00	DEADWOOD R	HEADWATERS to DEADWOOD RES		15	L	C	L		X	X		X	X		X	X	
322	703.00	PAYETTE R, M FK	HEADWATERS to PAYETTE R		11 12 15	L L L				X	X		X	X		X	X	
323	885.01	PAYETTE LK			15	L				X	X		X	X		X	X	
	886.00	PAYETTE R, N FK	FISHER CR to PAYETTE L		15	L											X	
	886.01	PAYETTE LK, UPPER			15	L											X	
	887.00	PAYETTE R, N FK	UPPER PAYETTE L to FISHER CR		15	L											X	
	888.00	PAYETTE R, N FK	HEADWATERS to UPPER PAYETTE		15	L											X	
324	884.00	CASCADE RES			11 12 25	L L L				X	X		X	X		X	X	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OF UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM COAT RECR	SEC COAT RECR	MONIT EVAL
884.00		CASCADE RES		BFO-DEQ	12	M	A,C	M	S/T	S/T	S/T	S/T	S/T	S/T	S/T	X
885.00		PAYETTE R, N FK	PAYETTE L to CASCADE RES		14	M	A,C	M								X
					22	M	C	M								
					65	M	A,I,P	M								
					77	M	C	M								
					86	M	A	M								
					87	M	H	M								X
					11	L										
					12	L										
					15	L										
898.00		MUD CR	HEADWATERS to CASCADE RES		10											X
898.00		MUD CR	HEADWATERS to CASCADE RES		15	H	N	H								X
896.00		LAKE FORK CR	LITTLE PAYETTE LK to CASCADE		11	L			X	X			X	X	X	X
					12	L										
					15	L										
896.01		PAYETTE LK, LITTLE			11	L										X
					12	L										
					15	L										
897.00		LAKE FORK CR	HEADWATERS to LITTLE PAYETTE		11	L			X	X			X	X	X	X
					12	L										
					15	L										
893.00		GOLD FORK R	FLAT CR to CASCADE RES		11	L			X	X			X	X	X	X
					12	L										
					15	L										
893.00		GOLD FORK R	FLAT CR to CASCADE RES		11	L	A,C	M	X	S/T	S/T		X	X	X	x
					12	L	A,C	M								
					15	L	A,C	M								
					21	L	C	M								
					23	L	C	M								
					74	M										
894.00		GOLD FORK R	HEADWATERS to FLAT CR		11	L			X	X			X	X	X	X
					12	L										
					15	L										
881.00		PAYETTE R, N FK	SMITHS FERRY to BANKS		11	L			X	X			X	X	X	X
					12	L										
					15	L										
882.01		PAYETTE R, N FK	CLEAR CR to SMITHS FERRY		11	L			X	X			X	X	X	X
					12	L										
					15	L										
883.00		PAYETTE R, N FK	CASCADE RES DAM to CLEAR CR		11	L			X	X			X	X	X	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SECT NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL																	
																	12	15	11	12	15	11	12	15	11	12	15	11	12	15			
330	690.00	BLACK CANYON RES				L																											
																	12	15	11	12	15	11	12	15	11	12	15						
331	691.00	PAYETTE R, M FK to BLACK CAN		DEQ		L																											
																	12	15	11	12	15	11	12	15	11	12	15						
340	696.00	ROBIE CR	HEADWATERS TO MORSE CR	SCC		L	H	C																									
																	12	15	11	12	15	11	12	15	11	12	15						
340	697.00	SOLDIER CR	HEADWATERS TO SQUAW CR	BFO-DEQ		L	H	C																									
																	12	15	11	12	15	11	12	15	11	12	15						
340	698.00	PAYETTE R	BLACK CANYON DAM to SNAKE R	SCC		L	H	C																									
																	12	15	11	12	15	11	12	15	11	12	15						
340	699.00	PAYETTE R	BLACK CANYON DAM to SNAKE R	SCC		L	H	C																									
																	12	15	11	12	15	11	12	15	11	12	15						
340	692.00	LITTLE WILLOW CR	HEADWATERS to PAYETTE R	BFO-DEQ		L	M																										
																	12	15	11	12	15	11	12	15	11	12	15						
340	692.00	LITTLE WILLOW CR	HEADWATERS to PAYETTE R	BFO-DEQ		L	M																										
																	12	15	11	12	15	11	12	15	11	12	15						
40	818.00	SNAKE R	WEISER (TOWN) to BROWNLEE DA	SCC		L	H	C																									
																	12	15	11	12	15	11	12	15	11	12	15						
40	818.00	SNAKE R	WEISER (TOWN) to BROWNLEE DA	SCC		L	H	C																									
																	12	15	11	12	15	11	12	15	11	12	15						
40	828.00	WARM SPRINGS CR	HEADWATERS to SNAKE R			L																											
																	12	15	11	12	15	11	12	15	11	12	15						

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SWB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONTR RECR	SEC CONTR RECR	MONIT EVAL
	829.00	HOG CR	HEADWATERS to SNAKE R		10											X
	830.00	SCOTT CR	HEADWATERS to SNAKE R		10											X
	831.00	JENKINS CR	HEADWATERS to SNAKE R		10											X
410	834.10	WEISER R	LITTLE WEISER R to GALLOWAY		11	L			X					X		X
					12	L										
					15	L										
	834.10	WEISER R	LITTLE WEISER R to GALLOWAY	SCC	15	H	C	H	X					X		X
	834.10	WEISER R	LITTLE WEISER R to GALLOWAY	SCC	11	H	C	H	X					X		X
					12	H	C	H								X
	834.10	WEISER R	LITTLE WEISER R to GALLOWAY	DEQ	11	H			X					X		X
					12	H										
					51	H										
					52	H										
					CT											
	835.00	WEISER R	HEADWATERS to LITTLE WEISER		11	L			X					X		X
					12	L										
					15	L										
411	857.00	WEISER R, W FK	HEADWATERS to WEISER R		11	L			X					X		X
					12	L										
					15	L										
	857.00	WEISER R, W FK	HEADWATERS to WEISER R	SCC	15	H	C	H	X					X		X
412	852.00	WEISER R, M FK	CABIN CR to WEISER R		11	L			X					X		X
					12	L										
					15	L										
	852.00	WEISER R, M FK	CABIN CR to WEISER R	SCC	15	H	C	H	X					X		X
	853.00	WEISER R, M FK	HEADWATERS to CABIN CR		11	L			X					X		X
					12	L										
					15	L										
	853.00	WEISER R, M FK	HEADWATERS to CABIN CR	SCC	15	H	C	H	X					X		X
413	845.00	WEISER R, LITTLE	INDIAN VALLEY to WEISER R	SCC	11	H			X					X		X
					15	H	C	H								
	845.00	WEISER R, LITTLE	INDIAN VALLEY to WEISER R		11	M	C	M	X					X		X
					12	L										

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEG NO	PNRS NO	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL																						
																	11	52	53	54	56	57	76	51	52	CT	11	52	53	56	57	12	15	51	52	CT	12	15
1035.00		SALMON R, YANKEE FK	JORDAN CR to SALMON R			L					S/T		S/T	S/T		X																						
1035.00		SALMON R, YANKEE FK	JORDAN CR to SALMON R	TF-FO DEQ		M	B,C,O	M								X																						
1036.00		SALMON R, YANKEE FK	HEADWATERS to JORDAN CR	DEQ		M	C	M								X																						
1036.00		SALMON R, YANKEE FK	HEADWATERS to JORDAN CR			M	C,O	M								X																						
1036.00		SALMON R, YANKEE FK	HEADWATERS to JORDAN CR			M	C,O	M								X																						
1036.00		SALMON R, YANKEE FK	HEADWATERS to JORDAN CR			M	C,O	M								X																						
1036.00		SALMON R, YANKEE FK	HEADWATERS to JORDAN CR			M	C	M								X																						
1021.00		SALMON R, E FK	BIG BOULDER CR to SALMON R			L			X	X	X		X	X		X																						
1021.00		SALMON R, E FK	BIG BOULDER CR to SALMON R	DEQ		M	B,C,O	M			S/T		S/T	S/T		X																						
1022.00		SALMON R, E FK	HEADWATERS to BIG BOULDER CR			M	C	M								X																						
1022.00		SALMON R, E FK	HEADWATERS to BIG BOULDER CR	DEQ		M	C,O	M								X																						
1022.00		SALMON R, E FK	HEADWATERS to BIG BOULDER CR			M	C,O	M								X																						
1031.00		THOMPSON CR	HEADWATERS to SALMON R	BLM		M				X	S/T		S/T	X		X																						
1031.00		THOMPSON CR	HEADWATERS to SALMON R	USFS		L										X																						
1031.00		THOMPSON CR	HEADWATERS to SALMON R	DEQ		M										X																						
1029.00		SQUAW CR	FOREST BOUNDARY to SALMON R	DEQ		M										X																						

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
20	1090.00	SQUAW CR	HEADWATERS TO FOREST BOUNDAR	DEQ	51	M										X
					52	M										
					CT		O									
	1008.00	SALMON R	SALMON R, E FK TO PAHSIMEROI		12	L			X	X	X	X	X	X	X	X
					15	L										
	1017.00	GARDEN CR	FOREST BOUNDARY TO SALMON R	BLM	11	M	A	M			S/T	S/T	S/T	S/T		X
					12	M	A	M								
					14	M	C	M								
					15	H	C	M								
					31	L	C	L								
					32	L	C	L								
					51	L	C	L								
					74	L	G	L								
					77	L	C	L		S/T						X
	1019.00	WARM SPRINGS CR	HEADWATERS TO SALMON R	BLM	11	L	A	M								
					12	M	A	M								
					14	M	C	M								
					15	M	C	M								
					31	L	C	L								
					32	L	C	L								
					71	M	C	M								
					73	M	C	M								
					74	M	C	M								
					77	M	C	M		S/T	S/T	S/T	S/T	S/T		X
210	1099.00	PAHSIMEROI R	DOWNTON LANE TO SALMON R	DEQ	51	M			X	X	X	X	X	X	X	X
					52	M										
					CT		O									
	1099.00	PAHSIMEROI R	DOWNTON LANE TO SALMON R		12	L										
					15	L										
	1100.00	PAHSIMEROI R	HEADWATERS TO DOWNTON LANE	DEQ	51	M										X
					52	M										
					CT		O									
	1100.00	PAHSIMEROI R	HEADWATERS TO DOWNTON LANE		12	L										
					15	L										
	1100.00	PAHSIMEROI R	HEADWATERS TO DOWNTON LANE	BLM	12	M	A	M	X	X	X	X	X	X	X	X
					14	M	C	M								
					15	H	C	H								
					31	L	C	L								
					74	M	G	M								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
																	77
30	1100.00	PAHSIMEROI R	HEADWATERS to DOWNTON LANE	IDL													
					11	M	C	M	X	S/T	S/T		S/T	X	S/T	X	
					14	M	C	M									
					15	M	C	M									
	1110.00	BIG CR	FOREST BOUNDARY TO PAHSIMERO	IDL													
					11	M	C	M		S/T	S/T					X	
					14	M	C	M									
					15	M	C	M									
	1110.00	BIG CR	FOREST BOUNDARY TO PAHSIMERO	BLM													
					12	L	A	L			S/T	S/T	S/T	S/T		X	
310	964.00	SALMON R	PAHSIMEROI R to SALMON R, N	DEQ													
					51	M										X	
					52	M											
					CT	O											
	964.00	SALMON R	PAHSIMEROI R to SALMON R, N														
					12	L			X	X	X		X	X	X	X	
					15	L											
	964.00	SALMON R	PAHSIMEROI R to SALMON R, N	BLM													
					11	L	A	L		X	X		X	X	X	X	
					12	L	A	L									
				14	M	C	M										
				15	H	C	H										
				21	M	C	M										
				22	M	C	M										
				23	M	C	M										
				31	M	C	M										
				32	L	C	L			S/T	S/T	S/T	X	X	X		
				74	M	G	M										
				77	M	G	M										
				76	M												
1061.00	KIRTLEY CR	BLM BOUNDARY TO LEMHI R	IDL														
				12	M	C	M		X	X	S/T	S/T	X	X	X		
				14	M	C	M										
				15	M	C	M										
1063.00	GEERTSON CR	BLM BOUNDARY TO LEMHI R	IDL														
				12	M	C	M		S/T	S/T	S/T				X		
				14	M	C	M										
				15	M	C	M										
1065.00	BOHANNON CR	BLM BOUNDARY TO LEMHI R	IDL														
				12	M	C	M		S/T	S/T	S/T				X		
				14	M	C	M										
				15	M	C	M										
1067.00	WIMPEY CR	BLM BOUNDARY TO LEMHI R	IDL														
				12	M	C	M		S/T	S/T	S/T				X		
				14	M	C	M										
				15	M	C	M										
1070.00	SANDY CR	BLM BOUNDARY TO LEMHI R	IDL														
										S/T	S/T				X		

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
	1077.00	MCDEVITT CR	BLM BOUNDARY TO LEMHIR	IDL	12 14 15	M M M	C C C	M M M									
	1078.00	MCDEVITT CR	HEADWATERS TO BLM BOUNDARY	BLM	12 14 15 22	M M M M	C C C C	M M M M								X	
	1082.00	MILL CR	FOREST BOUNDARY TO LEMHIR	IDL	15 21 22 23 31 51 76 77	H M M M M M M M	C C C C C C,F C,H	H M M M L M M M								X	
	1084.00	LITTLE EIGHTMILE CR	FOREST BOUNDARY TO LEMHIR	BLM	12 14 15	M M M	C C C	M M M								X	
	1090.00	BIG TIMBER CR	FOREST BOUNDARY TO LEMHIR	BLM	15 31 74 77	M L H M	C C G C	M L H M									X
	1093.00	EIGHTEEN MILE CR	FOREST BOUNDARY TO LEMHIR	IDL	14 15 31 74 77	M H L H M	C C C G C	M H L H M									X
	1095.00	HAWLEY CR	FOREST TO EIGHTEENMILE CR	BLM	12 14 15	M M M	C C C	M M M									X
40	963.00	SALMON R	SALMON R, N FK TO CORN CR		15 31 74 77	H L H M	C C G C	H L H M		X	X	X	X	X	X	X	X
410	990.00	SALMON R, N FK	HEADWATERS to SALMON R		12 15	L L	L L	L L		X	X	X	X	X	X	X	X
	995.00	CARMEN CR	FREEMAN CR TO SALMON R, N FK	IDL	11 14 15	M M M	C C C	M M M									X
420	965.00	PANTHER CR	HEADWATERS to BLACKBIRD CR		12 15	L L	L L	L L		X	X	X	X	X	X	X	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEQ NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					15	L										
	934.00	SALMON R, S FKE FK	JOHNSON CR to SALMON R, S FK	DEQ	51	H										X
					52	H										
					CT		O									
	935.00	SALMON R, S FKE FK	SUGAR CR to JOHNSON CR		51	M	C.O.R	M	S/T	X	S/T		X	X	X	X
					12	L										
					15	L										X
	935.00	SALMON R, S FKE FK	SUGAR CR to JOHNSON CR	DEQ	51	H										X
					52	H										
					CT		O									
	936.00	SALMON R, S FKE FK	HEADWATERS to SUGAR CR		51	M	C.O.R	M	S/T	X	S/T		X	X	X	X
					12	L										
					15	L										X
	950.00	SUGAR CR	HEADWATERS to SALMON R, S FK		51	M	C.O.R	M								
					51	H										X
					52	H										
					CT	O										
	950.00	SUGAR CR	HEADWATERS to SALMON R, S FK	BFO-DEQ	20	M	C.O	H			S/T		S/T	S/T	S/T	X
					51	H	O	H								
					57	H		H								
5111	942.00	JOHNSON CR	HEADWATERS to HALFWAY CR						X	X	X		X	X	X	X
512	927.00	SECESH R	LICK CR to SALMON R, S FK		15	L			X	X	X		X	X	X	X
	928.00	SECESH R	LOON CR to LICK CR		15	L			X	X	X		X	X	X	X
	929.00	SECESH R	LAKE CR to LOON CR		15	L			X	X	X		X	X	X	X
60	1320.00	SALMON R	FRENCH CR to LITTLE SALMON R		15	L			X	X	X		X	X	X	X
60B	1345.00	SALMON R	CHERRY CR to FRENCH CR		15	L			X	X	X		X	X	X	X
610	863.00	SALMON R, LITTLE	ROUND VALLEY CR to SALMON R		11	L			X	X	X		X	X	X	X
					12	L	I	L								
					15	L										
	863.01	TRAIL CR	HEADWATERS TO LITTLE SALMON	BLM	15	M					S/T		S/T			X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEGM NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN		POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
							L	C									
					21	L	C	L									
					23	M	C	M									
	864.00	SALMON R, LITTLE	HEADWATERS to ROUND VALLEY C		11	L			X	X	X		X	X	X	X	
					12	L	I	L									
					15	L							S/T				X
	873.00	ROUND VALLEY CR	HEADWATERS TO LITTLE SALMON	IDFG	10	H					S/T						X
					20	H											
611	866.00	RAPID R	N REC AREA to LITTLE SALMON		11	L			X	X	X		X	X	X	X	X
					12	L											
					15	L											
	866.00	RAPID R	N REC AREA to LITTLE SALMON	IDFG	10	M			X	X	S/T		S/T	X	X	X	X
					20	M											
					30	M											
					70	M											
	867.00	RAPID R	HEADWATERS to N REC AREA		11	L			X	X	X		X	X	X	X	X
					12	L											
					15	L											
	867.00	RAPID R	HEADWATERS to N REC AREA	IDFG	10	L			X	X	S/T		S/T	X	X	X	X
					20	L											
					30	L											
70	1316.00	SALMON R	LITTLE SALMON R to SNAKE R		11	L			X	X	X		X	X	X	X	X
					12	L											
					15	L											
	1319.01	SOTIN CR	HEADWATERS TO SALMON R	BLM	15	L	C	L			S/T		S/T				X
					74	L	C	L									
710	1300.00	WHITE BIRD CR	HEADWATERS to SALMON R		11	L			X	X	X		X	X	X	X	X
					12	L											
					15	L											
80	1321.00	CHINA CR	HEADWATERS to SALMON R	BLM	15	L	C	L			S/T		S/T	X	X	X	X
					21	L	C	L									
					23	M	C	M									
	1322.00	EAGLE CR	HEADWATERS TO SALMON R	BLM	21	L	C	L			S/T		S/T				X
					23	M	C	M									X
	1323.00	DEER CR	HEADWATERS to SALMON R	IDFG	15	M	C	M			S/T		S/T				X
					21	L	C	L									X
					23	M	C	M									X
	1324.00	COTTONWOOD CR	HEADWATERS to SALMON R	BLM	15	L	C	L			S/T		S/T				X
					21	L	C	L									X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

SB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN		POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL		
							M	C											
	1327.00	RICE CR	HEADWATERS to SALMON R	BLM	23	M			M			S/T	S/T				X X		
810	1328.00	ROCK CR	HEADWATERS to SALMON R	BLM	21	L	C		L			S/T					X X		
					23	M	C		M										
					11	L				X	X								
					12	L													
					15	L													
	1328.00	ROCK CR	HEADWATERS to SALMON R	BLM	11	M	C		M		X	S/T	S/T				X X		
					15	L	C		L								X X		

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER		WARM WATER		SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
											BIOTA	BIOTA	BIOTA	BIOTA					
	12				L														
	15				L														
	21	AMERICAN R	HEADWATERS TO CLEARWATERS R.	BLM		L	C		X	X	S/T	S/T		X	X			X	X
	23					L	C												
	30					L	C												
	54					M	C												
	77					M	C												
	21	BUFFALO GULCH	HEADWATERS TO AMERICAN R	BLM		L	C				S/T	S/T						X	X
	23					M	C												
	54					M	C												
	77					M	C												
	15	AMERICAN R, E FK	HEADWATERS TO AMERICAN R			L	C												
	23					M	C												
	54					M	C												
	77					M	C												
	21	AMERICAN R, E FK	HEADWATERS TO AMERICAN R			L	C												
	23					L	C												
	30					L	C												
	54					M	C												
	77					M	C												
	15	AMERICAN R, E FK	HEADWATERS TO AMERICAN R			L	C												
	23					M	C												
	54					M	C												
	77					M	C												
1311	1304.00	ELK CR, BIG	HEADWATERS TO AMERICAN R			M	C		X	X	X	X		X	X				
	23					M	C												
	77					M	C												
	12					L													
	15					L													
	15	ELK CR, BIG	HEADWATERS TO AMERICAN R	BLM		M	C		S/T	S/T	S/T	S/T		X	X				
	21					L	C												
	23					L	C												
	32					L	C												
	51					L	C												
	77					L	C												
	15	ELK CR, LITTLE	HEADWATERS TO ELK CR, BIG	BLM		M	C				S/T	S/T						X	X
	21					L	C												
	23					L	C												
	32					L	C												
	51					M	C												
	77					M	C												
	15	RED R	HEADWATERS TO CLEARWATER R.			M	C		X	X	X	X		X	X				
	23					M	C												
	54					M	C												
	77					M	C												

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1308.00	RED R	HEADWATERS TO CLEARWATER R.		12	L										X
					15	L										
132	1281.00	CLEAR CR	HEADWATERS TO IR BOUNDARY		54	M	C	M								
					72	H	C	M								
					77											
	1281.00	CLEAR CR	HEADWATERS TO IR BOUNDARY		10		A,I	M								
					11	L										
					14	M										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					70	L	F,H	M								
					76	M										
					77	M										
	1281.00	CLEAR CR	HEADWATERS TO IR BOUNDARY		11	H	CFGH	H								
					14	H	CFGH	H								
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					30	H	CFGH	H								
					31	L	C,H	L								
					50	L	F,H	M								
					70	H										
					76	M										
					77	M										
	1281.00	CLEAR CR	HEADWATERS TO IR BOUNDARY		11	M	ACDFG	M								
					11	M	H	M								
					14	M	CFGH	M								
					14	M	I,P	M								
					15	M	CFGH	M								
					15	M	I,P	M								
					71	H	G,H	H								
					78	H	F,G	H								
					83	M	G,H,K	M								
	1286.00	CLEARWATER R, S FK	MILL CR TO CLEARWATER R		11	L					X	X	X	X	X	X
					12	L					X	X	X	X	X	X
					15	L					X	X	X	X	X	X
	1287.00	CLEARWATER R, S FK	AMERICAN R TO MILL CR													
	1287.00	CLEARWATER R, S FK	AMERICAN R TO MILL CR													

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL				
																	21	23	10	11
	1287.01	MAURICE CR	HEADWATERS TO WHISKEY CR	BLM																
	1291.00	THREEMILE CR	HEADWATERS TO CLEARWATER R.																	
1321	1291.00	THREEMILE CR	HEADWATERS TO CLEARWATER R.																	
	1291.00	THREEMILE CR	HEADWATERS TO CLEARWATER R.																	
	1288.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R.																	
1322	1288.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R.	BLM																
	1288.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R.	BLM																
	1288.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R.	SCC																
	1288.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R.	LFO-DEQ																
	1290.00	COTTONWOOD CR, S FK	HEADWATERS TO COTTONWOOD CR																	
	1290.00	COTTONWOOD CR, S FK	HEADWATERS TO COTTONWOOD CR																	
	1290.00	COTTONWOOD CR, S FK	HEADWATERS TO COTTONWOOD CR																	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			AGRI			COLD			WARM			PRIM			SEC		
									WATER SUPPLY																	
140	1029.00	SQUAW CR	FOREST BOUNDARY to SALMON R		77	M	A	L																		
					12	L																				
					31	M	C	M																		
					51	M	C	M																		
					74	H	G	H																		
					75	C	C	L																		
					83	L	C	M																		
					11	H	ACDFG	H																		
					11	H	H	H																		
					15	M	ACDHI	L																		
					14	L	ADHI	L																		
					18	L	ADHI	L																		
					76	M	F,G,H	M																		
					10	H	A,I	H																		
					11	H																				
					14	M																				
					15	L	CFGH	L																		
					20	L																				
					21	L																				
					23	L																				
					70	L	F,H	M																		
					76	L																				
					77	M																				
					11	H	ACDFG	H																		
					11	H	H	H																		
					14	L	ADHI	L																		
					15	L	ACDHI	L																		
					16	L	ADHI	L																		
					76	M	F,G,H	M																		
					10	H	A,I	H																		
					11	H																				
					14	M																				
					15	L	CFGH	L																		
					20	L																				
					21	L																				
					23	L																				
					70	L	F,H	M																		
					76	L																				
					77	M																				
					10	L	ACFI	L																		
					15	L																				
					20	H	CFGH	H																		
					21	H																				
					23	H																				
					70	L	F,H	L																		
					77	M																				
					77	M																				
					11	M	ACDGH	M																		
					11	M	M,N	L																		
					14	M	CDHIP	M																		
					15	M	CDHIP	M																		
					21	M	CFGH	M																		
					21	M	CGHK	M																		
					23	M	C,G,H	M																		
					71	M																				
					11	L																				
					12	L																				

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					21	L	CFGH	L								
					23	L	C,H	L								
					42	L	A,D,J	L								
					71	M	C,G,H	M								
					78	M	C,F,G	M								
					83	L	G,K	L								
	1181.00	SEVENMILE CR	HEADWATERS to LAWYERS CR		11	H	C	H								
					71	H	H	H								
	1181.00	SEVENMILE CR	HEADWATERS to LAWYERS CR		11	M	ACDGH	M								
					14	L	CDHIP	L								
					15	L	CDHIP	L								
					71	H	G,H	H								
					78	H	F,G	H								
					83	M	G,K	M								
142	1171.00	JIM FORD CR	HEADWATERS to IR BOUNDARY		10	M	A,J	M		X	X			X	X	
					11	M										
					14	M										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					40	M	CFGH	M								
					43	M	F,H	M								
					70	L										
					78	M										
					77	M										
	1171.00	JIM FORD CR	HEADWATERS to IR BOUNDARY		11	L	ACDGH	L								
					11	M	ACDG	M								
					14	L	ACGHI	L								
					14	L	P	L								
					14	M	ACHIP	M								
					15	L	ACHIP	L								
					21	M	CFGH	M								
					23	L	C,F,G	L								
					41	L	K	L								
					42	M	ADIP	M								
					42	H	ADIP	H								
					76	M		H								
	1171.00	JIM FORD CR	HEADWATERS to IR BOUNDARY		11	L										X
					12	L										
					15	L										
	1171.01	MILES CR	HEADWATERS TO FORDS CR	IDL	15	M	D	M							ST	X
					21	L	C	M		ST						
	1173.01	PETE/CHARLIE CR	HEADWATERS TO LOLO CR	IDL	15	M	O	M			ST					X
					21	L	C	M								
	1173.02	ROCK CR	HEADWATERS TO LOLO CR	IDL	15	M	O	M			ST					X
					21	L	C	M								
	1173.03	TROUT CR	HEADWATERS TO LOLO CR	IDL	15	M	O	M			ST					X
					21	L	C	M							ST	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OF UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECH	SEC CONT RECH	MONIT EVAL
1421	1172.00	GRASSHOPPER CR	HEADWATERS to JIM FORD CR		11 12 15	L L L			X	X				X	X	X
	1172.00	GRASSHOPPER CR	HEADWATERS to JIM FORD CR		10 11 14 15 20 21 23 70 76 77	M M M L M M M L M M	A, J CFGH F, H	M								
143	1169.00	OROFINO CR	OROFINO FALLS to CLEARWATER		12 15	L L			X	X			X	X	X	X
	1169.00	OROFINO CR	HEADWATERS to OROFINO FALLS	NP TRIBES	11 11 14 15 21 23 42	M M M M L L	C, D, G M, N CDHI CDHI C, G, H A, D, J	M		ST	ST		ST			X
	1169.00	OROFINO CR	HEADWATERS to OROFINO FALLS		12 15	L L										X
	1169.01	CEDAR CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1169.02	COOPER CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1169.03	LIGHTNING CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1169.04	RAINY CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1169.05	CANAL CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1169.06	FLAT CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1169.07	RHODES CR	HEADWATERS TO OROFINO CR	IDL	21 23	L L	C C	M M		ST						X
	1170.01	FALLS CR	HEADWATERS TO WHISKEY CR	IDL	21 23	L L	C C	M M		ST						X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1186.01	THOMPSON CR	HEADWATERS TO CLEARWATER R,	IDL	21	L	C	L			S/T					X
	1186.02	ISABELLA CR		IDL	21 23	M M	C C	M M			S/T	S/T				X
	1196.10	CLEARWATER R, L N FK	HEADWATERS TO FOEHL CR	CFO-DEQ	20	M	C	M			S/T	S/T				X
	1196.30	FOEHL CR	HEADWATERS TO CLEARWATER R,	CFO-DEQ	20	M	C	M			S/T	S/T				X
	1200.00	GLOVER CR	HEADWATERS TO STONY CR	CFO-DEQ	20	H	C	H			S/T	S/T				X
	1201.00	SAWTOOTH CR	HEADWATERS TO CLEARWATER R,	CFO-DEQ	20	L	C	L			S/T	S/T				X
	1202.02	CANYON CR	HEADWATERS TO CLEARWATER R,	CFO-DEQ	20	M	C	M			S/T	S/T				X
	1203.00	SPOTTED LUIS CANYON	HEADWATERS TO CLEARWATER R,	CFO-DEQ	20	M	C	M			S/T	S/T				X
	1204.00	BENTON CR, N FK	HEADWATERS TO BENTON CR	IDL	21 23	M M	C C	M M			S/T	S/T				X
	1208.00	CLEARWATER R, N FK	KELLY CR to ISABELLA CR		11 15	L L										X
	1209.00	CLEARWATER R, N FK	HEADWATERS to KELLY CR		11 15	L L										X
	1214.00	TRAPPER CR	HEADWATERS TO WASHINGTON CR	IDL	21	L	C	L			S/T					X
	1215.01	CRYSTAL CR	HEADWATERS TO OROGRANDE CR	IDL	21	H	C	H			S/T			S/T		X
	1215.02	SILVER CR	HEADWATERS TO OROGRANDE CR	IDL	21	H	C	H			S/T			S/T		X
145	1185.00	DWORSHAK RES			11 15	L L			X	X	X	X	X	X		X
	1185.02	ELKS BERRY CR	HEADWATERS TO DWORSHAK RES	IDL	21	H	C	H			S/T			S/T		X
	1185.03	WEITAS CR	HEADWATERS TO DWORSHAK RES	IDL	21	H	C	H			S/T					X
	1185.04	ROBINSON CR, S FK	HEADWATERS TO DWORSHAK RES	IDL	21	M	C	M			S/T					X
	1187.01	DICKS CR, S FK	HEADWATERS TO DICKS CR	IDL							S/T					X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT	EVAL
1188.00		LONG MEADOW CR	HEADWATERS TO DWORSHAK RES	BLM	21	L	C	L			ST	ST	S/T			X	X
1188.01		THREE BEAR CR	HEADWATERS TO MEADOW CR	IDL	21	H	C	H			ST			S/T			X
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	L									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									
					76	L											
					77	M											
1192.00		SWAMP CR	HEADWATERS TO DWORSHAK RES		10	L	ACFI	L									
					15	L	CFGH	H									
					20	H											
					21	H											
					23	H											
					70	L	F,H	M									

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	11				L											
	12				L											
	15				L											
	1139.00	CLEARWATER R	IR BOUNDARY to WASHINGTON LI	SCC	11	H	C	H	X	X	X	X	X	X	X	X
	1139.01	CORRAL CR	HEADWATERS to CLEARWATER R	IDL	11	H	O	H								
					15	M	C	H								
					21										S/T	X
	1189.00	STONY CR	HEADWATERS to BREAKFAST CR		20	H	CFGH	H								
					21	H										
					23	H										
					70	H	F,H	L								
					76	L										
					77	M										
	1189.00	STONY CR	HEADWATERS to BREAKFAST CR		20	H	CFGH	H								
					21	H										
					23	H										
					70	H	F,H	H								
					76	H										
					77	H										
	1189.00	STONY CR	HEADWATERS to BREAKFAST CR		20	H	CFGH	H								
					21	H										
					23	H										
					70	H	F,H	H								
					76	H										
					77	H										
	1184.00	BIG CANYON CR	SIXMILE CANYON to CLEARWATER	SCC	11	H	C	H	X	X	X	X	X	X	X	X
151	1184.00	BIG CANYON CR	SIXMILE CANYON to CLEARWATER		11	H	C	H	X	X	X	X	X	X	X	X
					12	L										
					15	L										
	1184.00	BIG CANYON CR	SIXMILE CANYON to CLEARWATER	NP TRIBE	11	M	A,C,D	M	X	S/T	S/T	S/T	S/T	X	X	X
					11	M	M,N	L								
					15	M	A,D,I	L								
					21	L	CFGH	H								
					23	L	C,H	L								
					41	L	C	L								
					42	L	A,D,I	L								
					71	M	G,H	M								
	1164.10	BIG CANYON CR	HEADWATERS to SIXMILE CANYON		10	M	A,I	M	X	X	X	X	X	X	X	X
					11	M										
					14	M										
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					30	L	CFGH	L								
					31	L										
					32	L										
					60	M	A,I	M								
					65	M										
					70	M	F,H	M								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM		PRIM		SEC CONTR RECR	MONIT EVAL
									WATER SUPPLY	AGRI WATER SUPPLY	COLD BIOTA	WATER BIOTA	SALM SPAWN	CONTR RECR			
	1164.10	BIG CANYON CR	HEADWATERS TO SIXMILE CANYON		76 77	M M	A,C,D M,N	M		X	X	X	X				
	1164.10	BIG CANYON CR	HEADWATERS TO SIXMILE CANYON		11 11 14 15 21 23 41 42 71	M M M L L L L L M	A,C,D M,N A,D,I C,D,F,G,H C,H C A,D,I G,H	M									
	1164.10	BIG CANYON CR	HEADWATERS TO SIXMILE CANYON		11 11 14 15 21 23 71	H H H L L L H	ACDH F,M,N CDHIP G,H C,F,G C,H G,H G,H	H									X
	1164.10	BIG CANYON CR	HEADWATERS TO SIXMILE CANYON	SCC	11	H	C	H		X	X	X	X				X
152	1160.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R (		11 23 71	M M L	C C H	M		X		X	X				
	1160.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R (		11 15 15 21 23 76	M M M L L M	A,C,F ACDHI P C,F,G C C,F,G	M		X		X	X				
	1160.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R (		11 12 15	H L L	C	H									X
	1160.00	COTTONWOOD CR	HEADWATERS TO CLEARWATER R (	SCC	11	H	C	H									
153	1150.00	POTLATCH R	HEADWATERS TO BEAR CR	SCC	11	H	C	H		X	X	X	X				X
	1150.00	POTLATCH R	HEADWATERS TO BEAR CR	NP TRIBE	11 14 15 16 21 23 42 51	M L L M H H L M	AGHMN ADHI ADHI DHIP CDGH CDGH	M		X		S/T	S/T				X
	1150.00	POTLATCH R	HEADWATERS TO BEAR CR		10 11 14	M M M	A,I	M		X	X	X	X				X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL																							
																	15	20	21	23	50	51	70	78	77	10	15	20	21	23	50	51	70	78	77	10	14	15	20
1150.00		POTLATCH R	HEADWATERS to BEAR CR				CFGH	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				C	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				F,H	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				ACFI	L																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				CFGH	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				B,C	H																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				F,H	L																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				ACFI	L																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				CFGH	H																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				F,H	L																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				ACFI	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				CFGH	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				F,H	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				A,J	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				CFGH	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				F,H	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				A,J	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				CFGH	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				F,H	M																															
1150.00		POTLATCH R	HEADWATERS to BEAR CR				A,J	M																															

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			AGRI			COLD			WARM			SALM			MONIT	EVAL
									WATER SUPPLY																
					14	M																			
					15	L																			
					20		CFGH	M																	
					21	M																			
					23	M																			
					70		F,H	M																	
					78	L																			
					77	M																			
	1150.00	POTLATCH R	HEADWATERS to BEAR CR		10		A,J	H																	
					11	H																			
					14	M																			
					15	L																			
					20		CFGH	L																	
					21	L																			
					23	L																			
					70		F,H	M																	
					78	L																			
					77	M																			
	1150.00	POTLATCH R	HEADWATERS to BEAR CR		10		A,J	H																	
					11	H																			
					14	M																			
					15	L																			
					20		CFGH	L																	
					21	L																			
					23	L																			
					70		F,H	M																	
					78	L																			
					77	M																			
	1150.00	POTLATCH R	HEADWATERS to BEAR CR		11	H																			
					12	L																			
					15	L																			
	1151.00	POTLATCH CR, LITTLE	HEADWATERS to IR BOUNDARY (T		10																				
	1153.00	BEAR CR, BIG	HEADWATERS to POTLATCH R		10																				
	1155.00	PINE CR	HEADWATERS to POTLATCH R		10																				
	1156.00	CEDAR CR	HEADWATERS to POTLATCH R		10																				
	1157.00	POTLATCH R, E FK	HEADWATERS to POTLATCH R		10																				
	1158.00	RUBY CR	HEADWATERS to POTLATCH R, E		10																				
	1158.00	RUBY CR	HEADWATERS to POTLATCH R, E		10																				
	1158.00	RUBY CR	HEADWATERS to POTLATCH R, E		10																				
	1149.00	POTLATCH R	BEAR CR to CLEARWATER R		10																				
154					11	H																			
					14	M																			
					15	L																			
					70		F,H	M																	
					76	L																			
					77	M																			

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SECT NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			SEC		
									AGRI WATER SUPPLY	WATER SUPPLY	BIOTA	COLD WATER SUPPLY	WATER BIOTA	BIOTA	SALM SPAWN	PRIM CONT REGR	COAT REGR	MONIT EVAL
1149.00		POTLATCH R	BEAR CR to CLEARWATER R														
	1149.00	POTLATCH R	BEAR CR to CLEARWATER R	SCC	11	H	A,C,D	H									
					11	L	G,H,M,N,P	M									
					14	L	CDHIP	L									
					15	L	CDHIP	L									
					21	M	CDGH	H									
					41	L	K	L									
					42	L		L									
					51	L	AC	L									
					71	H	F,G,H	M									
					76	H	F,H	H									
					77	M	C,G,H	M									
	1149.00	POTLATCH R	BEAR CR to CLEARWATER R	SCC	11	H	C	H									X
	1149.00	POTLATCH R	BEAR CR to CLEARWATER R		11	H	C	H									
					12	L											
					15	L											
1541	1154.00	BEAR CR, LITTLE	HEADWATERS to POTLATCH R		10	M	A,I	M									
					11	M											
					14	M											
					15	L											
					20	M	CFGH	M									
					21	M											
					23	M											
					70	M	F,H	M									
					76	L											
					77	M											
	1154.00	BEAR CR, LITTLE	HEADWATERS to POTLATCH R		11	H	C	H									X
					15	L											
	1154.00	BEAR CR, LITTLE	HEADWATERS to POTLATCH R		11	H	C	H									X
155	1167.00	LAPWAI CR	SOURCE TO WINCHESTER L		11	H	C	H									X
					11	H	C	H									
					23	M	C	M									
					31	M	C	M									
					71	H	H	H									
	1167.00	LAPWAI CR	SOURCE TO WINCHESTER L		11	H	C	H									X
					12	L											
					15	L											
	1167.00	LAPWAI CR	SOURCE TO WINCHESTER L	SCC	11	H	C	H									X
					11	H	C	H									
					21	M	C	M									
					31	M	C	M									
					71	M	C	M									
	1167.00	LAPWAI CR	SOURCE TO WINCHESTER L	BLM	11	M	C	M									X
					21	L	C	L									
					31	M	C	M									
					71	M	C	M									
	1167.00	LAPWAI CR	SOURCE TO WINCHESTER L		11	H	A,C,D	H									X
					11	H	G,H,M,N	M									
					14	M	ACDIP	M									
					15	L	ACDIP	M									
					21	H	CDFGH	M									

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL																			
																	23	31	41	42	65	71	72	76	77	16	11	21	31	71	10	11	14	15	20
	1167.00	LAPWAI CR	SOURCE TO WINCHESTERL				CDFGH CFGH C,K	M H L																											
	1167.00	LAPWAI CR	SOURCE TO WINCHESTERL				ACDIP	M																											
1551	1143.10	WINCHESTERL		LFO-DEQ			A,J	H		X	X				X	X																			
158	1147.00	MISSION CR	HEADWATERS to IR BOUNDARY (T				CFGH	M	X	X				X	X																				
	1147.00	MISSION CR	HEADWATERS to IR BOUNDARY (T				A,C,D DGHM ACDHI P ACDHI	H M L L L H																											
	1147.00	MISSION CR	HEADWATERS to IR BOUNDARY (T				P A,J	H H																											
	1147.00	MISSION CR	HEADWATERS to IR BOUNDARY (T				CFGH	M																											
	1147.01	MILL CR	HEADWATERS TO MISSION CR	IDL			CFGHK C F,H	M L H								X																			
	1147.01	MILL CR	HEADWATERS TO MISSION CR	IDL			B,C	M								X																			

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SECT NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1147.10	MISSION CR	IR BOUNDARY to LAPWAL CR													X
160	1120.00	PALOUSE R	MEADOW CR to WASHINGTON LINE		11 15	H M M	A/C A/C I	H H L	X	X	X	X	X	X	X	X
	1120.00	PALOUSE R	MEADOW CR to WASHINGTON LINE	SCC	11	H	C	H	X	X	X	X	X	X	X	X
	1120.00	PALOUSE R	MEADOW CR to WASHINGTON LINE	DEQ	12 15	L L			X	X	X	X	X	X	X	X
	1121.00	PALOUSE R	HEADWATERS to MEADOW CR	USFS	CT		O		X	X	X	X	X	X	X	X
	1121.00	PALOUSE R	HEADWATERS to MEADOW CR		15 21	M M	C	M	X	X	X	X	X	X	X	X
	1122.00	DEEP CR	HEADWATERS to PALOUSE R		23	H			X	X	X	X	X	X	X	X
	1123.00	FLANNIGAN CR	HEADWATERS to PALOUSE R		53 54	L L			X	X	X	X	X	X	X	X
	1124.00	ROCK CR	HEADWATERS to PALOUSE R		10	L			X	X	X	X	X	X	X	X
	1125.00	GOLD CR	HEADWATERS to PALOUSE R	USFS	10	L			X	X	X	X	X	X	X	X
	1127.00	FLAT CR	HEADWATERS to PALOUSE R		10	H			X	X	X	X	X	X	X	X
	1127.00	FLAT CR	HEADWATERS to PALOUSE R	USFS	15 21	H M	C	M	X	X	X	X	X	X	X	X
	1128.00	BIG CR	HEADWATERS to PALOUSE R		10				X	X	X	X	X	X	X	X
	1128.00	BIG CR	HEADWATERS to PALOUSE R	USFS	15 21	H M	C	H	X	X	X	X	X	X	X	X
	1129.00	MEADOW CR	HEADWATERS to PALOUSE R		10				X	X	X	X	X	X	X	X
	1129.00	MEADOW CR	HEADWATERS to PALOUSE R	USFS	15 21	H M	C	H	X	X	X	X	X	X	X	X
	1130.00	STRYCHINE CR	HEADWATERS to PALOUSE R		10				X	X	X	X	X	X	X	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SECT NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1130.00		STRYCHNINE CR	HEADWATERS to PALOUSE R	USFS	15	H	C	H								X
					21	M										
					23	H										
1131.00		LITTLE SAND CR	HEADWATERS to PALOUSE R	USFS	15	M	C	M								X
					21	M										
					23	H										
					76	H										
1132.00		BIG SAND CR	HEADWATERS to PALOUSE R	USFS	21	M										X
					23	H										
					76	H										
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	L	ACFI	L								X
					15	L										
					20	M	CFGH	M								
					21	M										
					23	H										
					70	L	F,H	M								
					76	L										
					77	M										
					80	M	C	L								
					81	L										
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	M	A,C									
					20	H	C,F									
					70	M	F									
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		15	M	C	M								
					21	M										
					23	H										
					76	H										
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	L	ACFI	L								
					15	L										
					20	H	CFGH	H								
					21	H										
					23	H										
					70	L	F,H	M								
					76	L										
					77	M										
					80	M	C	L								
					81	L										
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		20	H	C,F,G									
					77	M	C,F									
					81	M	C									
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		21	M										
					23	H										
					76	H										
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	L	ACFI	L								
					15	L										
					20	M	CFGH	H								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					21	H										
					23	H										
					70		F,H	M								
					76	L										
					77	M										
					80											
					81	L	C	L								
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	L	A,C									
					20	H	C,F,G									
					71	M	F,H									
					81	L	C									
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		21	M										
					23	H										
					54	M										
					76	M										
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	L	ACFI	L								
					15											
					20		CFGH	H								
					21	H										
					23	H										
					50	L	C	L								
					54	L	F,H	M								
					70	L										
					76	M										
					77	M										
					80											
					81	L	C	L								
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		21	M										
					23	H										
					54	M										
					76	M										
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	M	ACFI	M								
					14	L										
					15	L	CFGH	H								
					20	H										
					21	H										
					23	H										
					50	L	C	L								
					54	L	F,H	M								
					70	L										
					71	M										
					76	M										
					80											
					81	L	C	L								
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	M	ACFI	M								
					14	L										
					15	L	CFGH	M								
					20	M										
					21	M										
					23	M										
					70	L	F,H	M								
					76	M										
					77	M										
					80	L	C	L								
					81	L										

X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SECT NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER	COLD WATER	BIOTA	WARM WATER	BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R															
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R															
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R															
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R															
1133.00		PALOUSE R, N FK	HEADWATERS to PALOUSE R															

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					20		CFGH	M								
					21	M										
					23	M										
					70	M	F,H	M								
					76	M										
					77	M										
					80	M										
					81	L	C	L								
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		10	H	ACFI	H								
					11	M										
					14	M										
					20	M	CFGH	M								
					21	M										
					23	M										
					70	M	F,H	M								
					76	M										
					77	M										
					80	M										
					81	M	C	L								
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		11	H	ABCDI	H								
					14	H	EFGH									
					15	L										
					20	M	CFGH	M								
					21	M										
					23	M										
					30	M	CFGH	M								
					32	M										
					50	L	C,H	L								
					51	L										
					60	L	AL	L								
					63	L										
					65	L										
					70	H	F,H	H								
					71	H										
	1133.00	PALOUSE R, N FK	HEADWATERS to PALOUSE R		10											X
171	1134.00	PALOUSE R, S FK	HEADWATERS to WASHINGTON LIN		10	H	A,I	H		X				X		
					11	L										
					14	L										
					30	M	CFGH	M								
					32	M										
					70	H	F,H	H								
					71	H										
					72	H										
					80	L	C	L								
					81	L										
	1134.00	PALOUSE R, S FK	HEADWATERS to WASHINGTON LIN		10	H	A,I	H		X				X		
					11	L										
					14	L										
					30	M	CFGH	M								
					32	M										
					70	H	F,H	H								
					71	H										
					72	H										
					80	L	C	L								
					81	L										
	1134.00	PALOUSE R, S FK	HEADWATERS to WASHINGTON LIN		11	H	S	H								X
					15	L										

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1134.00	PALOUSE R, S FK	HEADWATERS to WASHINGTON LIN	SCC	11	H	C	H								X
	1134.00	PALOUSE R, S FK	HEADWATERS to WASHINGTON LIN	DEQ	CT		O									X
1711	1136.00	COW CR	HEADWATERS to WASHINGTON LIN		10	H	A,H	H		X					X	
					14	H	F,H	M								
					76	H										
					77	H										
	1136.00	COW CR	HEADWATERS to WASHINGTON LIN		11	H	S	H		X					X	X
					15	L										
	1136.00	COW CR	HEADWATERS to WASHINGTON LIN	SCC	11	H	C	H		X					X	X
1712	1135.00	PARADISE CR	HEADWATERS to PALOUSE R		11	H	S	H		X					X	X
					15	L										
	1135.00	PARADISE CR	HEADWATERS to PALOUSE R	SCC	11	H	C	H		X					X	X
	1135.00	PARADISE CR	HEADWATERS to PALOUSE R	DEQ	11	H	O									X
					CT											
	1135.00	PARADISE CR	HEADWATERS to PALOUSE R		10	H	A,J	H								
					11	H										
					14	H										
					30	H	CFGH	H								
					32	H										
					40	H	CFGK	H								
					41	H										
					43	H										
					70	H	F,H	H								
					71	H										
					72	H										
					80	L										
					81	L	C	L								
20	1146.00	WEBB CR	HEADWATERS to IR BOUNDARY (T		10				X	X	X			X	X	X
	1146.10	WEBB CR	IR BOUNDARY to SWEETWATER CR		10				X	X	X			X	X	X
	1148.00	CATHOLIC CR	HEADWATERS to CLEARWATER R		10											X
210	1102.00	PATTERSON CR	FOREST BOUNDARY to PAHSIMERO		10		A,J	H								
					11	H										
					14	H										
					18	H										
					30	H	CFGH	H								
					31	H										
					32	H										
					40	L	CFGK	L								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

CB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1141.00	LINDSAY CR	IR BOUNDARY to CLEARWATER R		31 51 51 74 77	M H M H M	C O C G C	M H M H M		X	X				X	X
	1141.00	LINDSAY CR	IR BOUNDARY to CLEARWATER R	SCC	11 12 15	M L L	S	M	X	X	X			X	X	X
810	1225.00	OSIER CR	HEADWATERS to MOOSE CR (T to		11	H	C	H	X	X	X		X	X	X	X
	1225.00	OSIER CR	HEADWATERS to MOOSE CR (T to	USFS	15 21 23 78	H L H H	C	H	X	X	X		X	X	X	X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	CFO-DEQ	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT	EVAL
1574.30		ST JOE R	IR BOUNDARY TO COEUR D'ALENE			10 41 43 62 87	L L L L M	A,C A,C A,C A C,H	L L L L M									X
1574.30		ST JOE R	IR BOUNDARY TO COEUR D'ALENE			10 41 43 62 87	L L L L M								S/T			X
1362.00		KOOTENAI R	BONNERS FERRY to MONTANA LIN			11 15	L L			X	X	X	X	X	X	X		X
1362.00		KOOTENAI R	BONNERS FERRY to MONTANA LIN	CDA-DEQ		10 20 41 43 74 76 77	M L L L H M H H	A,C	M	S/T	X	S/T	S/T	S/T	S/T	X		X
1362.00		KOOTENAI R	BONNERS FERRY to MONTANA LIN			10 20 41 43 74 76 77	M L L L H M H H	C,G,H C,G,H	H H									X
1362.00		KOOTENAI R	BONNERS FERRY to MONTANA LIN			10 20 41 43 74 76 77	M L L L H M H H	A,C	M									X
1362.01		KATKA CR	HEADWATERS TO KOOTENAI R	BLM		15 21 23	M M M	I C C	M M M			S/T						X
1471.00		CLARK FK R.	CABINET GORGE to PEND OREILL	CFO-DEQ		10 20 71 72 74 77	L L H H H H	A,C A,C ACGH ACGH ACGH ACGH	L L H H H H	X	X	S/T	S/T	S/T	X	X		X
1471.00		CLARK FK R.	CABINET GORGE to PEND OREILL	DEQ		51 52 CT	H H	O										X
1471.00		CLARK FK R.	CABINET GORGE to PEND OREILL			11 12 15	L L L											X
1471.00		CLARK FK R.	CABINET GORGE to PEND OREILL			10 20 71 72 74	L L H H H	A,C A,C ACGH ACGH ACGH	L L H H H									X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	H	ACGH	H	POLLUTANTS OF CONCERN	MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL			
																				77	ACGH	H
	1472.00	JOHNSON CR	HEADWATERS TO CLARK FORK	CFO-DEQ	77	M	A.C	M						S/T	S/T				x			
10S	1481.00	COEUR D'ALENE R	YELLOWDOG CR to COEUR DALENE	CFO-DEQ	14	L	C,H	L				X	X	S/T	S/T	X	X		x			
					15	L	C,H	L														
					20	L	C	L														
					53	L	C,H	L														
	1481.00	COEUR D'ALENE R	YELLOWDOG CR to COEUR DALENE		15	L					X	X	S/T	S/T	X	X		x				
	1482.00	COEUR D'ALENE R	TEEPEE CR to YELLOW DOG CR		15	L					X	X	S/T	S/T	X	X		x				
	1482.00	COEUR D'ALENE R	TEEPEE CR to YELLOW DOG CR	CFO-DEQ	14	L	C,H	L				X	X	S/T	S/T	X	X		x			
	1482.00	COEUR D'ALENE R	TEEPEE CR to YELLOW DOG CR		15	L	C,H	L				X	X	S/T	S/T	X	X		x			
	1482.00	COEUR D'ALENE R	TEEPEE CR to YELLOW DOG CR		20	L	C,H	L				X	X	S/T	S/T	X	X		x			
	1482.10	MINERS CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	21	M	C	M						S/T	S/T				X			
	1483.00	COEUR D'ALENE R	HEADWATERS to TEEPEE CR		23	M	C	M				X	X	X	X	X	X		X			
	1483.00	COEUR D'ALENE R	HEADWATERS to TEEPEE CR	CFO-DEQ	31	M		M				X	X	S/T	S/T	X	X		X			
	1495.00	STEAMBOAT CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	71	M	G,H	M						S/T	S/T				X			
	1503.00	LOST CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	74	M	G,H	M						S/T	S/T				x			
	1504.00	SHOSHONE CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	77	M	G,H	M						S/T	S/T				x			
	1504.01	FALLS CR	HEADWATERS TO SHOSHONE CR	CFO-DEQ	20	L	C	L						S/T	S/T				x			
	1505.00	DOWNNEY CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	20	L	C	L						S/T	S/T				x			
	1505.00	DOWNNEY CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	83	L	C,H	L						S/T	S/T				x			

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1506.00	YELLOWDOG CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	20 83	L L	C C,H	L L			S/T	S/T				X
	1507.00	FLAT CR	HEADWATERS TO COEUR DALENE	CFO-DEQ	20	L	C	L			S/T	S/T				x
	1510.00	TRAIL CR	HEADWATERS TO TEEPEE CR	CFO-DEQ	20 83	L L	C C,H	L L			S/T	S/T				X
	1511.00	ELK CR, BIG	HEADWATERS TO TEEPEE CR (T T	CFO-DEQ	20 83	L L	C C,H	L L			S/T	S/T				X
110K	1395.00	MOYIE R	MOYIE FALLS DAM to KOOTENAI		15 20 74	L L H	C C A,C,G	L L L	X	X	X	X	X	X	X	X
	1395.00	MOYIE R	MOYIE FALLS DAM to KOOTENAI		11 15	L L		L L	X	X	X	X	X	X	X	X
	1396.00	MOYIE R	MEADOW CR to MOYIE FALLS DAM		11 15	L L		L L	X	X	X	X	X	X	X	X
	1396.10	MOYIE R	CANADA LINE to MEADOW CR		11 15	L L		L L	X	X	X	X	X	X	X	X
	1397.00	SKIN CR	HEADWATERS TO MOYIE R	CFO-DEQ	20	L	C	L								x
110P	1473.00	LIGHTNING CR	QUARTZ CR to CLARK FK	CFO-DEQ	20	H	AC	H	X	X	S/T	S/T		X	X	x
	1473.00	LIGHTNING CR	QUARTZ CR to CLARK FK		15	L			X	X	X	X	X	X	X	X
	1473.02	PORCUPINE CR	HEADWATERS TO LIGHTNING CR	CFO-DEQ	20	H	AC	H			S/T	S/T				x
	1473.03	RATTLE CR	HEADWATERS TO LIGHTNING CR	CFO-DEQ	20	H	AC	H			S/T	S/T				x
	1474.00	LIGHTNING CR	HEADWATERS to QUARTZ CR		15	L			X	X	X	X	X	X	X	X
	1474.00	LIGHTNING CR	HEADWATERS to QUARTZ CR	CFO-DEQ	20	H	AC	H	X	X	S/T	S/T		X	X	x
	1475.00	SPRING CR	HEADWATERS TO LIGHTNING CR		21 23 76	L L L	C C C	L L L								
	1475.00	SPRING CR	HEADWATERS TO LIGHTNING CR	CFO-DEQ	20	H	AC	H			S/T	S/T				x
	1475.00	SPRING CR	HEADWATERS TO LIGHTNING CR	CFO-DEQ	20	H	AC	H			S/T	S/T				x

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SECTO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1488.00	LAVERNE CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	20	L	C	L			S/T		S/T			X
	1489.00	LEBIERG CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	20	L	C	L			S/T		S/T			X
	1490.00	SKOOKUM CR	HEADWATERS TO COEUR D'ALENE													
	1491.00	DECEPTION CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	20	L	C	L			S/T		S/T			X
	1492.00	BURNT CABIN CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	20	L	C	L			S/T		S/T			X
	1493.00	IRON CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ	20	L	C	L			S/T		S/T			X
	1499.00	BEAVER CR	HEADWATERS TO COEUR D'ALENE													
130S	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		15	L			X	X	X		X	X		X
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)	CFO-DEQ	20		C	L	X	X	S/T		S/T	X		X
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		41		C	L								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		56	H	C	H								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		71	M	C,H	M								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		82	M	B,O	H								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		20		C	L								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		41		C	L								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		56	H	C	H								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		71	M	C,H	M								
	1517.00	COEUR D'ALENE R, SF	HEADWATERS TO MULLAN (TOWN)		82	M	B,O	H								
140S	1515.00	COEUR D'ALENE R, SF	OSBORNE (TOWN) TO COEUR DAL	DEQ	51	H			X	X	S/T		S/T	X		X
	1515.00	COEUR D'ALENE R, SF	OSBORNE (TOWN) TO COEUR DAL		52	H										
	1515.00	COEUR D'ALENE R, SF	OSBORNE (TOWN) TO COEUR DAL		CT		O									
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		20	M	C	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		50	H	C,F	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		56	H	O	H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		71	H	H	H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		76	H	H	H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		78	H	F	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		83	M	C	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		85	H	O	H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		41	L	C	L								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		43	L	C	L								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		50	H	BCLO	H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		70	H		H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		82	M	B,O	H								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		20	M	C	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		50	H	C,O	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		71	H	F	M								
	1516.00	COEUR D'ALENE R, SF	MULLAN (TOWN) TO OSBORNE (TO		71	H	H	H								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGNO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT REGR	SEC CONT REGR	MONIT EVAL																														
																	78	76	83	85	41	49	50	70	82	51	52	CT	21	23	50	20	20	50	52	55	56	71	78	83	85	20	50	65	51	52
	1516.00	COEUR D'ALENE R. SF	MULLAN (TOWN) to OSBORNE (TO		DEQ	H	F	M																																						
						H	H	H																																						
						M	C	M																																						
						H	O	H																																						
						L	C	L																																						
						L	C	L																																						
						H	BCLO	H																																						
						H	C,H,O	H																																						
						M	B,O	H																																						
	1516.00	COEUR D'ALENE R. SF	MULLAN (TOWN) to OSBORNE (TO	DEQ		H										X																														
						H																																								
						CT	O																																							
	1516.01	ROCK CR	HEADWATERS TO COEUR D'ALENE	BLM		M	C	M	X	X	S/T		X	X	X	X																														
						H	C	M																																						
						L	C	M																																						
141S	1525.00	CANYON CR	HEADWATERS TO COEUR D'ALENE			M	C,F	M	X	X	S/T		X	X	X	X																														
						M	H	M																																						
						M	H	M																																						
						M	C,F	M																																						
						M	H	M																																						
						M	H	M																																						
						M	O	M																																						
						M	C,F	M																																						
						M	H	M																																						
						M	H	M																																						
						M	H	M																																						
						M	C	M																																						
	1525.00	CANYON CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ		L	C	L	X	X	S/T		X	X	X	X																														
						M	BCIO	M																																						
						L	A,I	L																																						
	1525.00	CANYON CR	HEADWATERS TO COEUR D'ALENE	DEQ		H										X																														
						H																																								
						CT	O																																							
142S	1524.00	NINE MILE CR	HEADWATERS TO COEUR D'ALENE			L	I	L																																						
						M	C	M																																						
						M	C	M																																						
						M	C	M																																						
						M	H	M																																						
						M	H	M																																						
						M	O	M																																						
						H	F,H	H																																						
						M	C	M																																						
						H	F	H																																						
						H	F	H																																						
						M	C	M																																						
						M	O	M																																						
	1524.00	NINE MILE CR	HEADWATERS TO COEUR D'ALENE	DEQ		H										X																														
						H																																								
						CT	O																																							
	1524.00	NINE MILE CR	HEADWATERS TO COEUR D'ALENE	CFO-DEQ		L	C	L	X	X	S/T		X	X	X	X																														
						M	BCIO	M																																						
						L	A,I	L																																						

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL				
																	S/T	X	S/T	X
143S	1521.00	BIG CR	HEADWATERS to COEUR D'ALENE	CFO-DEQ	20	L	C	L	S/T	X	S/T				X					
					52	H	BCHO	H												
					56	H	BCHO	H												
	1521.00	BIG CR	HEADWATERS to COEUR D'ALENE	DEQ	51	H											X			
					52	H														
					CT		O													
	1521.00	BIG CR	HEADWATERS to COEUR D'ALENE		21	L	C	L												
					23	M	C	L												
					50	M	C	L												
					52	H	C	H												
52					H	B,F,O	M													
56					H	B,O	M													
71					H	F	M													
146S	1519.00	PINE CR	HEADWATERS to COEUR D'ALENE		83	M	C	L												
					83	M	C	H												
					83	M	O	M												
					71	H	H	H					X	X	S/T	X				X
					11	L		L												
					12	L		L												
					15	L		L												
1519.00	PINE CR	HEADWATERS to COEUR D'ALENE	DEQ	51	H															
				52	H															
				CT		O														
1519.00	PINE CR	HEADWATERS to COEUR D'ALENE	CFO-DEQ	20	L	C	L	S/T	X	S/T					X					
				52	M	BCHO	M													
				56	M	BCHO	M													
				71	L	C,H	L													
					M	C,F	M													
1520.00	PINE CR, E FK	HEADWATERS to PINE CR		50	M	C	M													
				56	H	O	M													
				57	H	O	M													
				71	H	F	M													
				71	H	H	M													
				76	H	C,F	M													
				76	H	H	M													
				83	M	C	M													
1520.00	PINE CR, E FK	HEADWATERS to PINE CR		20	L	C	L	S/T	X	S/T					X					
				52	M	BCHO	M													
				56	M	BCHO	M													
1520.00	PINE CR, E FK	HEADWATERS to PINE CR		71	L	C,H	L													
					M	C,F	M													
					M	C	M													
					M	O	M													
1520.00	PINE CR, E FK	HEADWATERS to PINE CR		20	M	C,F	M													
				50	M	C	M													
				56	H	O	M													
				57	H	O	M													
				71	H	F	M													
				71	H	H	M													

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1520.00	PINE CR, E FK	HEADWATERS to PINE CR	CFO-DEQ	83	M	C	M								
					85	M	O	M			ST					X
149S	1518.00	BEAR CR	HEADWATERS to COEUR D'ALENE	CFO-DEQ	20	L	C	L	X	X	ST		X			X
					71	M	C,H	M								
					73	M	C,H	M								
	1518.00	BEAR CR	HEADWATERS to COEUR D'ALENE		20	L	C	L								
					71	M	C,H	M								
					73	M	C,H	M								
20	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H								
					51	H	C,F	H								
					57	M	C	H								
					78	H	C,F	H								
					77	M	C,F,G	M								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		12	H	ACGH	H								
					15	H	C,H	H								
					74	H										
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	H	C	H								
					71	H	C	H								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	H	C	H								
					76	H										
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	L	A	L								
					15	A	A	L								
					77	L	C	L								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	L	C	L								
					14	L	A	L								
					77	L	C	L								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	L	C	L								
					14	L	A	L								
					77	L	C	L								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	L	C	L								
					14	L	A	L								
					77	L	C	L								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	L	A	L								
					51	L	C	L								
					77	L	C	L								
	1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	L	A	L								
					51	L	C	L								
					77	L	C	L								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			MONIT EVAL
									WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WATER BIOTA	WATER BIOTA	SALM SPAWN	CONT RECR	SEC CONT RECR		
					14	H	F,G	H										
					15	H	C,F	H										
					74	H	F,G	H										
					78	H	C,F,G	H										
					77		C,G	H										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H										
					78	H	C,F,G	H										
					77	H	G	H										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	H	F,G	H										
					15	H	C,F,G	H										
					73	H	F,G	H										
					74	H	F,G	H										
					78	H	C,F,G	H										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	M	F,G	M										
					15	M	C	H										
					74	H	F,G	M										
					78	M	C,F	M										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	H	F,G	H										
					15	H	C,F	H										
					74	H	F,G	H										
					78	H	C,F	H										
					77	H	F,G	H										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		74	H	G	H										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	M	C	M										
					14	M	A	M										
					77	M	C	M										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	L	A	L										
					12	M	A	M										
					14	M	C	M										
					15	M	C	M										
					31	L	C	L										
					32	L	C	L										
					71	C	C	M										
					73	C	C	M										
					74	C	C,G	M										
					77		C	M										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	H	A	H										
					71	H	C	H										
					78	H		H										
					77		C	H										
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		11	M	A	M										
					12	M	A	M										
					14	M	C	M										
					15	H	C	M										
					31	L	C	L										
					32	L	C	L										
					51	L	C	L										

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			WARM			PRIM			SEC				
									AGRI WATER SUPPLY	AGRI WATER SUPPLY	AGRI WATER SUPPLY	WATER BIOTA										
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	74	L	G	L	L	L														
			77	L	C	L	L															
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	14	M	A	M	M															
			77	M	C	M	M															
			11	L	A	L	L															
			12	M	A	L	L															
			14	M	C	M	M															
			15	H	C	H	H															
			31	L	C	L	L															
32	L	C	L	L																		
74	H	G	H	H																		
77	M	C	M	M																		
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	14	M	A	M	M															
			77	M	C	M	M															
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	10	M	A,J	M	M															
			15	M	F,H	M	M															
			70	M		M	M															
			78	M		M	M															
			77	M		M	M															
			11	M		M	M															
			11	M	A,C,D GHMN	H	H															
11	H	ACDI	M	M																		
14	M	ACDI	M	M																		
16	H	ACDHI	H	H																		
71	L	C	L	L																		
73	H	F,G,H	H	H																		
74	H	F,G,H	H	H																		
78	H	CFGH	H	H																		
60	L		L	L																		
62	L	A,D,I	L	L																		
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	10	H	A,J	H	H															
			11	H		H	H															
			14	M		M	M															
			15	L		L	L															
			30	H	C,F,G	H	H															
			31	H	F,H	H	H															
			70	H		H	H															
78	H		H	H																		
77	H		H	H																		
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	10	H	A,J	H	H															
			11	H		H	H															
			14	M		M	M															
			15	L		L	L															
			30	H	C,F,G	H	H															
			31	H	F,H	H	H															
			70	H		H	H															
78	H		H	H																		
77	H		H	H																		
1013.00	CHALLIS CR	FOREST BOUNDARY TO SALMON R	11	M	A,C,D	M	M															
			15	L	CDHI	L	L															
			21	M	CDFGH	M	M															
			23	L	C,H	L	L															
			71	M	C,F,G	M	M															
			71	M	G	M	M															
			73	M		M	M															

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL			
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		74	H	G	H											
					76	H	F,G,H	H											
					77	M													
					10	H	A,I	H											
					11	M													
					14	L													
					15	L													
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		70	L	F,H	M											
					76	L													
					77	M													
					11	H	A,C,D	H											
					11	H	G,H,M,N	M											
					14	L	A,C,H,I,P	L											
					15	L	A,C,H,I,P	L											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		16	M	A,D,F,H,I	M											
					76	M	C,F,G,H	M											
					77	H	C,D,F,G	H											
					10	M	A,I	M											
					11	M													
					15	M	F,H	M											
					76	M													
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		77	M													
					12	M	A,C,D	M											
					14	M	A,C,D	M											
					15	M	A,C,D	M											
					16	M	A,C,D	M											
					18	M	A,C,D	M											
					74	M	G	M											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		14	H	F,G	H											
					15	H	C,F,G	H											
					74	M	F,G	H											
					76	M	C,F	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F	H											
					76	H	C,F,G	H											
					77	H	C	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
					77	H	C,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											
1013.00		CHALLIS CR	FOREST BOUNDARY TO SALMON R		15	H	C,F,G	H											
					76	H	C,F,G	H											

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
20K	1363.00	KOOTENAI R	CANADA LINE to BONNERS FERRY		11 15	L L			X	X	X		X			X
	1363.00	KOOTENAI R	CANADA LINE to BONNERS FERRY		11 12 15	L L L			X	X	X		X			X
	1363.00	KOOTENAI R	CANADA LINE to BONNERS FERRY	CFO-DEQ	10 20 41 43 74 76 77	M L L L H M	A,C C,G,H C,G,H	M	S/T	X	S/T	S/T	S/T	X		x
	1363.00	KOOTENAI R	CANADA LINE to BONNERS FERRY						X	X	X		X			X
	1367.00	CURLEY CR	HEADWATERS TO KOOTENAI R	CFO-DEQ	18	M	A,C,D	M			S/T					x
	1377.00	MYRTLE CR	HEADWATERS TO KOOTENAI R	CFO-DEQ	20	H	C	H			S/T		S/T			x
	1382.00	MISSION CR	HEADWATERS TO KOOTENAI R	CFO-DEQ	10 20 31	M M L	C C C	L L			S/T					x
	1387.00	SMITH CR	SMITH FALLS TO KOOTENAI R	CFO-DEQ	70	H	CFGH	H			S/T		S/T			x
	1388.00	SMITH CR	HEADWATERS TO SMITH FALLS	CFO-DEQ	70	H	CFGH	H			S/T		S/T			x
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		71	H	G,H	M								
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		73 74	M M	C,F,G C,F,G	M M								
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		70	H	CFGH	H								
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		70	H	CFGH	H								
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		71	H	G,H	H								
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		10 20 41 43 74 76 77	M L L L H M	A,C C,G,H C,G,H	M								
	1389.00	BOUNDARY CR	COPELAND BOUNDARY ROAD TO KO		74 77	H H	F,GH F,GH	H H								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN/BENEFICIAL USE SUPPORT STATUS

PB SEQ NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					56	H	BCHO	H								
					71	H	BCHO	H								
					77	H	BCHO	H								
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE		20	L	BCHO	H								
					56	H	BCHO	H								
					71	H	BCHO	H								
					77	H	BCHO	H								
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE	CFO-DEQ	20	L	BCHO	H		X	S/T			X		X
					56	H	BCHO	H								
					71	H	BCHO	H								
					77	H	BCHO	H								
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE	SCC	11	H	C	H		X	X			X		X
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE		20	L	BCHO	H								
					56	H	BCHO	H								
					71	H	BCHO	H								
					77	H	BCHO	H								
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE		31	M	C,H	M								
					71	M	C,H	M								
					77	M	C	M								
					83	M	C	M								
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE		15	M	I	L								
					15	M	C	M								
					21	M	C,F	M								
					23	M	C,F	M								
					71	M	F,H	M								
					78	M	F,H	M								
					87	L	I	L								
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE		15	M										
					21	M										
					23	M										
					71	M										
					78	M										
					87	L										
1529.10		COEUR D'ALENE R	IR BOUNDARY to COEUR D'ALENE		20	M	C	L								
					56	H	O	M								
					74	L	D,F	M								
					78	F	F	M								
					83	M	C	L								
					83	M	O	M								
					85	H	D,O	M								
1529.50		BLACK L		DEQ	51	H										X
					52	H										
					CT		O									
1530.00		THOMPSON CR	HEADWATERS to COEUR D'ALENE		10											X
1530.00		THOMPSON CR	HEADWATERS to COEUR D'ALENE	CFO-DEQ	14		C,H	M			S/T					X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGINO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN		POLLUTANT MAGNITUDE		DOMES WATER SUPPLY		AGRI WATER SUPPLY		COLD WATER BIOTA		WARM WATER BIOTA		SALM SPAWN		PRIM CONT REGR		SEC CONT REGR		MONIT EVAL	
							C,H	C	M	L	M	L	X		X		X		X		X		X			X
	1533.00	FORTIER CR	HEADWATERS to KILARNEY L	CFO-DEQ	20	L																				
	1534.00	4TH OF JULY CR	HEADWATERS to COEUR DALENE		10																					X
	1534.00	4TH OF JULY CR	HEADWATERS to COEUR DALENE	CFO-DEQ	31	M	C,H	M																		X
	1535.00	LATOURE CR	HEADWATERS to IR BOUNDARY (T		71	M																				
	1535.00	LATOURE CR	HEADWATERS to IR BOUNDARY (T	CFO-DEQ	77	M	C,H	M																		X
	1535.10	LATOURE CR	IR BOUNDARY to COEUR DALENE	CFO-DEQ	83	M	C	M																		X
	1535.10	LATOURE CR	IR BOUNDARY to COEUR DALENE		10																					X
	1536.00	STEEL GULCH CR	HEADWATERS to COEUR DALENE	CFO-DEQ	20	L	C	L																		X
	1536.00	STEEL GULCH CR	HEADWATERS to COEUR DALENE		10																					X
	1537.00	FRENCH GULCH CR	HEADWATERS to COEUR DALENE	CFO-DEQ	20	L	C	L																		X
	1537.00	FRENCH GULCH CR	HEADWATERS to COEUR DALENE		10																					X
210P	1449.00	PACK R	HWY 95 to PEND ORELLE LK		11	L																				X
	1450.00	PACK R	PACK R, W BR to HWY 95		15	L																				X
	1451.00	PACK R	HEADWATERS to PACK R, W BR	DEQ	11	L																				X
	1452.00	TROUT CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	A,C	L																		X
	1453.00	RAPID LIGHTNING CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	A,C	L																		X
	1454.00	GOLD CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	A,C	L																		X
	1455.00	GROUSE CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	A,C	L																		X
	1456.00	SAND CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	A,C	L																		X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGN O	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
																	20
	1457.00	BERRY CR	HEADWATERS TO PACK R	CFO-DEQ	10 20	L	AC	L			S/T	S/T	S/T			x	
	1458.00	CARIBOU CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	AC	L			S/T	S/T	S/T			x	
	1459.00	HELLROARING CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	AC	L			S/T	S/T	S/T			x	
	1461.00	MCCORMICK CR	HEADWATERS TO PACK R	CFO-DEQ	20	L	AC	L			S/T	S/T	S/T			x	
220P	1462.00	TRESTLE CR	HEADWATERS TO PEND OREILLE L	CFO-DEQ	20 65	M H	AC A.D.I	L H			S/T	S/T	S/T			x	
	1463.00	STRONG CR	HEADWATERS TO PEND OREILLE L	CFO-DEQ	20 65	M H	AC A.D.I	L H			S/T	S/T	S/T			x	
	1464.00	RISER CR	HEADWATERS TO PEND OREILLE L	CFO-DEQ	20	M	AC	M			S/T	S/T	S/T			x	
	1466.00	CEDAR CR	HEADWATERS TO PEND OREILLE L	CFO-DEQ	20 32	M L	AC AC	M L			S/T	S/T	S/T			x	
	1467.00	GOLD CR N	HEADWATERS TO PEND OREILLE L	CFO-DEQ	20	M	AC	M			S/T	S/T	S/T			x	
30P	1468.00	GOLD CR	HEADWATERS TO PEND OREILLE L	CFO-DEQ	20 56 57	M L L	AC A.C.O A.C.O	M L L			S/T	S/T	S/T			x	
	1436.00	PEND OREILLE R	PEND OREILLE L to WASHINGTON		73 74	H H	C.F.G C.F.G	H H		X	X	X	X	X	X	x	
	1436.00	PEND OREILLE R	PEND OREILLE L to WASHINGTON		11 12 15	L L L					X	X	X	X	X	x	
	1436.00	PEND OREILLE R	PEND OREILLE L to WASHINGTON	CFO-DEQ	10 20 32 62 65 70 74 77 87	L L M M M H H M	AC.H AC A.I A.I C.H	L L M M M H H M		S/T	X	S/T	S/T	X	X	x	
	1436.00	PEND OREILLE R	PEND OREILLE L to WASHINGTON		10 20 32 62 65 70	L L M M M	AC.H AC A.I A.I C.H	L L M M M									

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
1547.00	MICA CR	HEADWATERS to COEUR D'ALENE														
1548.00	ROCKFORD CR	HEADWATERS to COEUR D'ALENE		CFO-DEQ							S/T					X
1548.00	ROCKFORD CR	HEADWATERS to COEUR D'ALENE		DEQ												X
1548.00	ROCKFORD CR	HEADWATERS to COEUR D'ALENE		DEQ	CT		O									X
1548.10	CAVE CR	HEADWATERS to COEUR D'ALENE			11	M	AC	M								X
1549.10	18 TO 1 CR	HEADWATERS to COEUR D'ALENE			11	M	AC	M								X
1549.20	MOWRY CR	HEADWATERS to COEUR D'ALENE			11	M	AC	M								X
1554.10	COEUR D'ALENEL			IDFG	11	H	C	H			S/T	S/T	S/T			X
1554.10	COEUR D'ALENEL			CFO-DEQ	15	H	AC,D	H								
1554.10	COEUR D'ALENEL				31	H	C	H								
1554.10	COEUR D'ALENEL				43	M	C	M								
1554.10	COEUR D'ALENEL				52	H	O	H								
1554.10	COEUR D'ALENEL				65	M	C,D	M			S/T	S/T	S/T			x
1554.10	COEUR D'ALENEL				10	H	AC	M								
1554.10	COEUR D'ALENEL				20	M	AC	M								
1554.10	COEUR D'ALENEL				32	H	AC,H	H								
1554.10	COEUR D'ALENEL				41	H	ACDI	H								
1554.10	COEUR D'ALENEL				42	H	ACDI	H								
1554.10	COEUR D'ALENEL				43	H	O	H								
1554.10	COEUR D'ALENEL				56	H	O	H								
1554.10	COEUR D'ALENEL				57	H	O	H								
1554.10	COEUR D'ALENEL				65	H	A,D,I	H								
1554.10	COEUR D'ALENEL				74	H		H								
1554.10	COEUR D'ALENEL				80	M		M								
1554.10	COEUR D'ALENEL			DEQ	87											
1554.10	COEUR D'ALENEL				51	H		H								X
1554.10	COEUR D'ALENEL				52	H		H								X
1554.10	COEUR D'ALENEL			SOC	CT		O									
1554.10	COEUR D'ALENEL			DEQ	11	H	C	H								X
1554.20	BELGROVE CR	HEADWATERS to COEUR D'ALENE														X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1554.30	COTTONWOOD CR	HEADWATERS to COEUR D'ALENE		11	H										X
	1554.40	SQUAW CR	HEADWATERS to COEUR D'ALENE		11	H										X
	1578.00	BENEWAH CR	HEADWATERS to COEUR D'ALENE	CFO-DEQ	11	H					S/T					X
	1578.00	BENEWAH CR	HEADWATERS to COEUR D'ALENE		11	H										X
	1368.00	DEEP CR	MCARTHUR L to KOOTENAI R		11	L			X	X	X	X	X	X	X	X
310K	1368.00	DEEP CR	MCARTHUR L to KOOTENAI R	CFO-DEQ	13	M	A,C	M	S/T	X	S/T	S/T	X	X	X	X
	1369.00	DEEP CR	HEADWATERS TO MCARTHUR LAKE	CFO-DEQ	20	L	C	L	X	X	S/T	X	S/T	X	X	X
	1370.00	SNOW CR	HEADWATERS TO DEEP CR	CFO-DEQ	20	L	C	L			S/T					X
	1371.00	CARIBOU CR	HEADWATERS TO SNOW CR	CFO-DEQ	20	L	C	L			S/T					X
	1372.00	RUBY CR	HEADWATERS TO DEEP CR	CFO-DEQ	20	L	C	L			S/T					X
	1373.00	TWENTYMILE CR	HEADWATERS TO DEEP CR	CFO-DEQ	20	L	C	L			S/T					X
	1373.10	BROWN CR	HEADWATERS TO DEEP CR	CFO-DEQ	20	L	C	L			S/T					X
	1374.00	FALL CR	HEADWATERS TO DEEP CR	CFO-DEQ	20	L	C	L			S/T					X
	1442.00	COCOLALLA CR	COCOLALLA L to PEND OREILLE	CFO-DEQ	10	L			X	S/T	S/T			X	X	X
310P	1442.00	COCOLALLA CR	COCOLALLA L to PEND OREILLE	CFO-DEQ	14	M	ACDHI	M								X
	1442.00	COCOLALLA CR	COCOLALLA L to PEND OREILLE		15	M	ACDHI	M								X
	1442.10	COCOLALLA L			20	L	A,C,H	L								X
	1442.10	COCOLALLA L			32	L	A,C,H	L								X
	1442.10	COCOLALLA L			65	L	A,D,I	L	X	X	X	X	X	X	X	X
	1442.10	COCOLALLA L			11	L										X
	1442.10	COCOLALLA L			12	L										X
	1442.10	COCOLALLA L			15	L										X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
	1442.10	COCOLALLA L		CFO-DEQ		L										
						L										
	1443.00	COCOLALLA CR	HEADWATERS to COCOLALLA L (T	CFO-DEQ		H	A.C.H	L								
						H	A.C.H	L								
						L	A.C	L								
						L	A.C.H	L								
						M	A	M								
						M	A	M								
						L	A.C.H	M	X	S/T	S/T	S/T	S/T	X	X	X
	1445.00	SANDPOINT CR INOW SAN	HEADWATERS TO PEND ORELLE L	CFO-DEQ		H	ACDHI	H								
						H	ACDHI	H								
						M	A.C.H	M								
						L	A.D.J	L								
						M	A.C.H	M								
						L	A.D.J	L								
	1447.00	SCHWEITZER CR	HEADWATERS TO SAND CR	CFO-DEQ		M	A.C.H	M	S/T	S/T	S/T	S/T				X
						L	A.C	L								
						H	A.C	H								
						M	A.C	M								
						M	A.C	M								
						M	A.C	M								
						M	A.C	M								
						M	A.H	M								
310S	1575.00	ST JOE R	ST JOE R, N FK to ROCHAT CR			L			X	X	X	X	X	X	X	X
						L										
						L										
	1575.00	ST JOE R	ST JOE R, N FK to ROCHAT CR	CFO-DEQ		L	C	L	X	X	S/T	S/T	S/T	X	X	X
						L	C	L								
						M	C	M								
						M	C.H	H								
	1576.00	ST JOE R	HEADWATERS to SPRUCE TREE CM	CFO-DEQ		L			X	X	S/T	S/T	S/T	X	X	X
						L										
						L										
	1576.10	ST JOE R	SPRUCE TREE CM PGD to ST JOE	CFO-DEQ		L			X	X	S/T	S/T	S/T	X	X	X
						L										
						L										
	1598.00	BOND CR	HEADWATERS TO ST JOE R	CFO-DEQ		L	C	L								X
						L										
	1600.00	HUGUS CR	HEADWATERS TO ST JOE R	CFO-DEQ		L	C	L								X
						L										
	1601.00	MICA CR	HEADWATERS TO ST JOE R	CFO-DEQ		L	C	L								X
						L										
	1602.00	BIG CR	HEADWATERS TO ST JOE R	CFO-DEQ		L										X
						L										
						L										

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES			AGRI			COLD			WARM			SALM			PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
									WATER SUPPLY																	
1580.00		ST MARIES R	CLARKIA (TOWN) to MASHBURN (	CFO-DEQ	14	L	C,H	L		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1581.00		ST MARIES R	HEADWATERS to CLARKIA (TOWN)		15 20	L L	C,H C	L L																	X	
1582.00		THORN CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1583.00		ALDER CR	IR BOUNDARY TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1584.00		JOHN CR	IR BOUNDARY TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1586.00		BEAVER CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1588.00		RENFRO CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1589.00		TYSON CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1590.00		CRYSTAL CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	X	
1592.00		OLSON CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	x	
1593.00		EMERALD CR	HEADWATERS TO ST MARIES R	CFO-DEQ	20 53 54 56 76	L H H H M	C C C C C,H	L H H H M																	x	
1593.00		EMERALD CR	HEADWATERS TO ST MARIES R	CFO-DEQ	15 20	L L	C,H C	L L																	x	
1593.00		EMERALD CR	HEADWATERS TO ST MARIES R		53 54 77	H H H	C C C	M H																		
1593.00		EMERALD CR	HEADWATERS TO ST MARIES R		14 53 71 74 76	H H H H H	C C G,H G,H G,H	H H H H H																		

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGN	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
					77		G.H	H								
1593.00		EMERALD CR	HEADWATERS TO ST MARIES R			L	C	L								
	1593.00	EMERALD CR	HEADWATERS TO ST MARIES R			H	C	H								
						H	C	H								
						H	C	H								
						M	C.H	M								
	53					H	C	M								
	54					H	C	H								
	56					H	C	H								
	76					M	C.H	M								
	53					H	C	M								
	54					H	C	H								
	77					H	C	H								
	15	ST MARIES R, M FK	HEADWATERS TO ST MARIES R	CFO-DEQ		L	C.H	L			S/T		S/T			X
	20					L	C	L								
	15	MERRY CR	HEADWATERS TO ST MARIES R, M	CFO-DEQ		L	C.H	L			S/T		S/T			X
	20					L	C	L								
	15	GOLD CENTER CR	HEADWATERS TO ST MARIES R, M	CFO-DEQ		L	C.H	L			S/T		S/T			X
	20					L	C	L								
	15	ST MARIES R, W FK	HEADWATERS TO ST MARIES R, M	CFO-DEQ		L	C.H	L			S/T		S/T			X
	20					L	C	L								
	15	CATSPUR CR	HEADWATERS TO ST MARIES R	CFO-DEQ		L	C.H	L			S/T		S/T			X
	20					L	C	L								
3221S	1587.00	CHARLIE CR	HEADWATERS TO SANTA CR	CFO-DEQ		M	C.H	L		X	S/T		S/T	X		X
						M	C.H	L								
						M	C	L								
322S	1579.00	ST MARIES R	MASHBURN (TOWN) TO ST JOE R			L	I	L		X			X			X
						L		L								
						L		L								
	14	ST MARIES R	MASHBURN (TOWN) TO ST JOE R	CFO-DEQ		L	C.H	L		X	S/T		S/T	X		X
	15					L	C.H	L								
	20					L	C	L								
	11					L		L								
	15					L		L								
	14	SANTA CR	HEADWATERS TO ST MARIES R			M	ACHI	M								
	15					M	ACHI	M								
	16					M	ACHI	M								
	20					L	C	L								
	11	PRIEST R	UPPER PRIEST L TO PRIEST L			L		L								
	12					L		L								
	15					L		L								
330P	1409.00	PRIEST R	UPPER PRIEST L TO PRIEST L			L		L								
						L		L								
	1409.00	PRIEST R	UPPER PRIEST L TO PRIEST L	CFO-DEQ		L		L								

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
330S	1410.00	PRIEST R	HEADWATERS to UPPER PRIEST L			L		M		X	X	X	X	X	X	X
	1410.00	PRIEST R	HEADWATERS to UPPER PRIEST L	CFO-DEQ		L		M		X	X	X	X	X	X	X
	1411.00	PRIEST R, W BR LO	HEADWATERS TO PRIEST R	CFO-DEQ		L		L								
	1574.00	ST JOE R	ROCHAT CR to MOUTH (IR)	CFO-DEQ		L		L		X	ST			X	X	X
	1574.00	ST JOE R	ROCHAT CR to MOUTH (IR)	DEQ		L		L								X
	1574.01	STREET CR	HEADWATERS TO ST JOE R	BLM		L		M			ST					X
	1575.01	READS GULCH	HEADWATERS TO ST JOE R	BLM		M		M								X
	1409.10	PRIEST L		CFO-DEQ		M		M		X	X	X	X	X	X	X
	1419.00	LAMB CR	HEADWATERS TO PRIEST L	CFO-DEQ		L		L								X
	1420.00	SOLDIER CR	HEADWATERS TO PRIEST L	CFO-DEQ		M		M								X
1421.00	KALISPEL CR	HEADWATERS TO PRIEST L	CFO-DEQ		M		M								X	
1422.00	HUNT CR	HEADWATERS TO PRIEST L	CFO-DEQ		M		M								X	
1423.00	INDIAN CR	HEADWATERS TO PRIEST L	CFO-DEQ		M		M								X	
1424.00	REEDER CR	HEADWATERS TO PRIEST L	CFO-DEQ		M		M								X	

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGN O	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
340S	1425.00	BEAR CR	HEADWATERS TO PRIEST L	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1426.00	GRANITE CR	HEADWATERS TO PRIEST L	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1427.00	TWO MOUTH CR	HEADWATERS TO PRIEST L	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1429.00	BEAVER CR	HEADWATERS TO PRIEST L	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1430.00	LION CR	HEADWATERS TO PRIEST L	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1577.00	PLUMMER CR	HEADWATERS to CHATCOLET L (I)		11 15	H L	C	H	X						X		X
350P	1577.00	PLUMMER CR	HEADWATERS to CHATCOLET L (I)	SCC	11	H	C	H	X					X		X
	1407.00	PRIEST R	PRIEST R, W BR UPPER to PEND		11 12 15	L L L			X	X	X	X	X	X	X	X
	1408.00	PRIEST R	PRIEST L to PRIEST R, W BR,		11 12 15	L L L			X	X	X	X	X	X	X	X
	1408.00	PRIEST R	PRIEST L to PRIEST R, W BR,	CFO-DEQ	20	M	C	M								X
	1416.00	PRIEST R, W BR UP	HEADWATERS TO PRIEST R	CFO-DEQ	20	L	C	L								X
	1417.00	GOOSE CR	HEADWATERS TO PRIEST R, W BR	CFO-DEQ	14 15 20	L L M	A,C A,C C	L L M			S/T	S/T				
350S	1418.00	BINARCH CR	HEADWATERS TO PRIEST R	CFO-DEQ	20	L	C	L								X
	1431.00	CARIBOU CR	HEADWATERS TO PRIEST R (THOR	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1433.00	HUGHES FORK	HEADWATERS TO UPPER PRIEST R	CFO-DEQ	20	M	A,C	M			S/T	S/T				X
	1543.00	FERNAN CR	FERNAN L to COEUR DALENE L		10				X	X	X	X	X	X	X	X
	1543.00	FERNAN CR	FERNAN L to COEUR DALENE L	CFO-DEQ	20 31 43 77 82	L H H M	C,H A,K C,D,H A,D,I	H L M M	X X X X	X X X X	S/T S/T S/T S/T	X X X X	X X X X	X X X X	X X X X	X X X X
	1543.10	FERNAN L														X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGNO	PNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN		POLLUTANT MAGNITUDE		DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL
							G,H ACDL	M	M	M								
410S	1554.00	SPOKANE R	COEUR D'ALENE L to HEUTER (	BLM	74	L					X	X	S/T	X	X		X	
	1554.00	SPOKANE R	COEUR D'ALENE L to HEUTER (	DEQ	77	L												
	1554.00	SPOKANE R	COEUR D'ALENE L to HEUTER (	DEQ	21 32 74 77	L M M M												X
420S	1437.00	BRICKEL CR	WASHINGTON LINE TO SPIRIT L	CFO-DEQ	11 12 15	L L L					X	S/T	S/T	S/T	X	X		X
	1438.00	SPIRIT CR	SUB AREA TO SPIRIT L	CFO-DEQ	51 52 CT	H H O												
	1438.10	SPIRIT L			15 20	M M	ACDH A,C,H	M M										
430S	1561.00	FISH CR	WASHINGTON LINE TO TWIN LAKE	CFO-DEQ	20 32 65 80 87	L L M M L	AC AC A,D,I A A,D,I	L L M M L			S/T	S/T	S/T	S/T	X	X		X
	1561.01	SPRING BRANCH CR	HEADWATERS TO RATHDRUM WATER	BLM	21 21 23 23 78	M M M M L	C A,F C F F	M L M L L			X	X	X	X	X	X		X
	1561.10	TWIN LAKES	N OF RATHDRUM (TOWN)	CFO-DEQ	14 15 16 20	H H H M	ACDH ACDH ACDH A,C,H	M M M M										
490S	1561.10	TWIN LAKES	N OF RATHDRUM (TOWN)		10 20 32 65 74 80 87	H M L M M M M	ACDH AC AC A,D,I A,C,H A A,C	H M L M M M M			S/T	S/T	S/T	S/T	S/T			X
	1555.00	HAYDEN CR	HEADWATERS TO HAYDEN L	CFO-DEQ	11 12 15	L L L					X	X	S/T	S/T	X	X		X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEGINO	PNFRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES SUPPLY	AGRI WATER	COLD BIOTA	WARM WATER	WATER BIOTA	SPAWN RECR	PRIM CONT	SEC CONT	MONIT EVAL
	1555.10	HAYDEN L			15 20 77	L M M	A.C.H A.C.H C.H	L L L									X
	1555.10	HAYDEN L		CFO-DEQ	10 20 32 41 42 65 80 87	M M H H H H M M	AC AC A.C.H ACDI ACDI A.D.J A A.C.H	M M H H H H M M	S/T		S/T	S/T	S/T	S/T			X
	1556.00	NILSEN CR	HEADWATERS TO HAYDEN L	CFO-DEQ	15 20	L M	A.C.H A.C.H	L M			S/T						X
	1557.00	MOKINS CR	HEADWATERS TO HAYDEN L	CFO-DEQ	15 20	L M	A.C.H A.C.H	L M			S/T						X
	1558.00	JIM CR	HEADWATERS TO HAYDEN L	CFO-DEQ	15 20	L M	A.C.H A.C.H	L M			S/T						X
	1559.00	YELLOWBANKS CR	HEADWATERS TO HAYDEN L	CFO-DEQ	15 20	L M	A.C.H A.C.H	L M			S/T						X
440S	1562.00	HAUSER LAKE CR	HAUSER L TO LOWER REACHES	CFO-DEQ	14 15 18 20	M M M M	ACDH ACDH ACDH A.C.H	M M M M	X	X	X	X	X	X			X
	1562.10	HAUSER L			11 12 15	L L L											X
	1562.10	HAUSER L		CFO-DEQ	10 20 32 41 42 49 65 80 87	M L L L L M M M L	AC AC A.C.H A.C.I A.C.I A.D.I A A.C.H	M L L L L L M M			S/T	S/T	S/T	S/T			X
450S	1565.00	HANGMAN CR	IR BOUNDARY TO ID/WA LINE	SCC	11	H	C	H	X							X	X
	1565.00	HANGMAN CR	IR BOUNDARY TO ID/WA LINE	DEQ	CT		O		X								X
	1585.00	HANGMAN CR	IR BOUNDARY TO ID/WA LINE	DEQ	11 15	H L	C	H									X

APPENDIX B
WATERS FULLY SUPPORTING BENEFICIAL USES OR UNKNOWN BENEFICIAL USE SUPPORT STATUS

PB SEG NO	FNRS NO.	NAME	BOUNDARIES	SUBMITTED BY	MAJOR SOURCE	IMPACT MAGNITUDE	POLLUTANTS OF CONCERN	POLLUTANT MAGNITUDE	DOMES WATER SUPPLY	AGRI WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM SPAWN	PRIM CONT RECR	SEC CONT RECR	MONIT EVAL	
	1566.00	HANGMAN CR	HEADWATERS to IR BOUNDARY	SCC	11	H	C	H		X					X	X	
	1566.00	HANGMAN CR	HEADWATERS to IR BOUNDARY		11 15	H L	C	H		X					X	X	
	1566.00	HANGMAN CR	HEADWATERS to IR BOUNDARY	DEQ	CT		O									X	
	1587.00	HANGMAN CR, LITTLE	HEADWATERS to WASHINGTON LIN	DEQ	11 15	H L	C	H								X	
	1569.00	LOLO CR	HEADWATERS to HANGMAN CR	DEQ	11 15	H L	C	H								X	
	1570.00	MISSION CR	HEADWATERS to HANGMAN CR	DEQ	11 15	H L	C	H								X	
4519	1571.00	ROCK CR, N FK	HEADWATERS to WASHINGTON LIN	DEQ	11 15	H L	C	H								X	
	1571.00	ROCK CR, N FK	HEADWATERS to WASHINGTON LIN	SCC	11	H	C	H		X					X	X	
608	1552.00	SPOKANE R	POST FALLS BRIDGE to WASHING		11 12 15	L L L										X	
	1552.00	SPOKANE R	POST FALLS BRIDGE to WASHING	CFO-DEQ	10 32 43 65 72 74 77	L L L M L L	AD AD,I A,C,K A,D,I ACDL G,H ACDL	L L L M M M M			S/T						X

APPENDIX C: TOXICS IMPACTED SEGMENTS LIST

Section 304(l) Of the Water Quality Act of 1987 requires states to develop lists of those waters which are impacted by toxic pollutants listed in Section 307(a) of the Act.

1. The "long" list includes all waters not meeting water quality standards for any pollutant and those waters with an imminent threat of not meeting standards. This list is equivalent to Appendix A and Appendix B.
2. The "mini" list includes all waters impaired by toxic pollutants listed in Section 307(a) of the Act which exceed the state's numeric criteria for these pollutants. Since Idaho does not have numeric criteria for 307(a) toxics, this list is not required.
3. The "short" list includes all waters which are not meeting water quality standards due solely or substantially to the 307(a) toxic pollutants contained in the effluent from a point source discharge.

Candidate segments for both the long and short lists were assembled by Research Triangle Institute (RTI, 1988). These candidate lists were based on a computer search of all STORET data for Idaho waters and on model dilution calculations. The candidate list is included in Table I, page C-2 with the reason for retention or disqualification of each segment identified.

The Water Quality Bureau, in consultation with EPA Idaho Operations Office, determined if candidate segments identified on the RTI list met all criteria for inclusion on the 304(l) short list. The Bureau has determined that no streams in Idaho meet the requirements of §304(l) for inclusion on the Short List.

Table I: Candidate 304(l) Short List (RTI, 1988).

Water Quality Standards #	PNRS #	Segment Name	Reason for Retention/Exclusion
CB-20	1310	Snake River	No substantial point source impacts
CB-20	1139	Clearwater R.	No substantial point source impacts
CB-151	1165	Little Canyon Cr	No point source identified
PB-130S	1516	Coeur d' Alene R, SF	No beneficial uses impaired
PB-130S	1517	Coeur d' Alene R, SF	No substantial point source impacts
PB-140S	1515	Coeur D' Alene R, SF	No beneficial uses impaired
PB-141S	1525	Canyon Creek	No substantial point source impacts
PB-143S	1521	Big Creek	No beneficial uses impaired
PB-145S		Government Gulch (Silver King Creek)	below point source No beneficial uses impaired
SWB-10	669	Snake River	No point source identified
SWB-250	742	Boise River	No point source identified
SWB-260	728	Boise River	Not 307(a) toxics
SWB-325	883	Payette River, NF	No point source identified
USB-420	324	Portneuf River	No substantial point source impacts
USB-420	324.1	Portneuf River	No substantial point source impacts
USB-50	363.1	Snake River	Not 307(a) toxics
USB-70/80	374	Snake River	Not 307(a) toxics
USB-80	371	Snake River	Not 307(a) toxics

APPENDIX D: WATER QUALITY LIMITED SEGMENTS

A water quality limited segment is "any segment where it is known that water quality does not meet applicable standards or is not expected to meet applicable water quality standards even after the application of effluent limitations required by Sections 301(b)(1)(A) and 301(b)(1)(B) of the Clean Water Act".

The Water Quality Limited Segments (WQLS) shown in Table 1 were identified by DEQ field staff using best professional judgement, a thorough knowledge of the streams in their areas and the following definitions:

- 1) "Those navigable waters within the State which with application of Best Applied Technology, cannot reasonably be expected to attain or maintain applicable water quality standards or the goals and requirements of this Act" (§303(d)(1)(A)); or
- 2) "Those navigable waters within the State which, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain applicable water quality standards or the goals and requirements of this Act;" (§319(a)(1)(A)).

The stream segments listed here meet one or both of the definitions. Additional stream segments in Idaho may be water quality limited by sediment. DEQ staff will attempt to identify these segments in subsequent revisions of the assessment.

Section 303 (d)(3) of the Clean Water Act requires development of a total maximum daily load (TMDL) for each pollutant of a WQLS. Establishing a TMDL is a process which consists of:

- 1) determining or setting the pollutant load which a stream can dilute or process without harm to the beneficial uses;
- 2) determining from comparison of this "safe pollutant load" and the current load, the amount of load reduction required to protect the beneficial uses and remove the water quality limitation of the stream; and
- 3) allocating the "safe pollutant load" between point and nonpoint sources of the pollutant, thus developing the mechanism for load reduction (waste load or load allocation).

Proper development of TMDLs requires intensive monitoring of the WQLS coupled with a computer modeling effort. DEQ currently lacks the staff and funding to competently complete TMDLs for the WQLSs listed.

Table 1. Water Quality Limited Segments in Idaho.

<u>Water Quality Standards Segment #</u>	<u>Name</u>	<u>Boundaries</u>
1515.00	Coeur d'Alene R. S. Fk.	Osborne (Town) to Coeur d'Alene R.
1516.00	Coeur d'Alene R.S. Fk.	Mullan (Town) to Osborne (Town)
1552.00	Spokane R.	Post Falls Bridge to Washington Line
1553.00	Spokane R.	Hueter (Town) to Post Falls Bridge
1554.00	Spokane R.	Coeur d'Alene L. to Hueter (Town)
	St. Joe R.	IR Boundary to Coeur d'Alene Lk.
1580.00	St. Maries R.	Clarkia (Town) to Mashburn (Town)
1597.00	St. Maries R. W. Fk.	Headwaters to St. Maries R.
1135	Paradise Cr.	Headwaters to Palouse R. S. Fk.
1171	Jim Ford Cr.	Headwaters to IR Boundary
369	Snake R.	Bliss Bridge to King Hill Dam
370	Bliss Res.	
415	Snake R.	King Hill to Highway 51 Bridge
549	Bruneau R.	Hot Cr. to CJ Strike Res.
662	Soda Cr.	Headwaters to Cow Cr.
664	Snake R.	Boise R. to Weiser R.
668	Snake R.	Swan Falls to Boise R.
669	Snake R.	Castle Cr. to Swan Falls
690	Black Canyon Res.	
731.1	Lowell Lk	
732	Indian Cr	Headwaters to New York Canal
818	Snake R.	Weiser(Town) to Brownlee Dam
840	Crane Cr.	Crane Cr.Res. to Weiser R.
841	Crane Cr. Res.	
842	Crane Cr.	Headwaters to Crane Cr. Res.
384	Billingsley Cr.	Headwaters to Snake R.
237	Cub R.	Headwaters to Utah L.
967	Panther Cr.	Blackbird Cr. to Salmon R.
918	Salmon R. S. Fk.	Buckhorn Cr. to Secesh R.
919	Salmon R. S. Fk.	Rice Cr. to Buckhorn Cr.
920	Salmon R. S. Fk.	Headwaters to Rice Cr.

APPENDIX E: IDAHO PRIORITY WETLANDS LIST

In an effort to anticipate and prevent threats to important and vulnerable wetland areas, the Environmental Protection Agency (EPA) has established a "priority wetlands list". The purpose of this list is to identify the most important and most vulnerable wetland areas in order to improve cooperation among federal and state agencies in targeting those resources most in need of protection. This list is intended as a preliminary guide to highlight wetlands that may require special attention.

The original priority wetlands list was compiled by EPA Region 10 in 1985 and updated in 1987. The list will be regularly updated and improved. It is not considered to be comprehensive at this time. The priority list of 149 wetlands in Idaho was assessed for this report by the EPA with input from other agencies for nonpoint source impacts as part of this report. The following agencies and individuals contributed to developing the priority wetlands list:

Idaho Department of Fish and Game
Idaho Natural Heritage Program
U.S. Army Corps of Engineers
U.S. Bureau of Land Management
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
The Nature Conservancy
Charles A. Wellner, U.S. Forest Service, retired, Chair,
Idaho Natural Areas Coordinating Committee

WETLANDS

BASIN	SEGMENT SEG #	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
BB	W1	THOMAS FORK	BEAR LAKE COUNTY								agriculture hydrologic mod 10H 70H	EPA		X
BB	W2	BEAR LAKE NWR	BEAR LAKE COUNTY			P			S/T		agriculture 16H	EPA		X
BB	W3	BEAR RIVER BOTTOMS	BEAR LAKE COUNTY								agriculture hydrologic mod 10H 70H	EPA		X
BB	W4	OXFORD SLOUGH	FRANKLIN/BANNOCK COUNTIES			P					agriculture mining hydrologic mod 16M 85M 74M	EPA	X	
BB	W5	SWAN LAKE	BANNOCK COUNTY			P					agriculture 16H	EPA		X
BB	W50	ELK VALLEY PRNA	CARIBOU COUNTY			P			P		agriculture hydrologic mod 16H 73H, 77H	EPA	X	
BB	W6	MALAD RIVER	ONEIDA COUNTY								agriculture hydrologic mod 10H 70H	EPA		X
BB	W7	CURLEW VALLEY	ONEIDA COUNTY								agriculture hydrologic mod 10H 70H	EPA		X
CB	W140	LOCHSA-SNEAKFT MEADO	CLEARWATER COUNTY								forest practices 20M	EPA	X	
CB	W143	MOOSE MEADOW CR PRNA	IDAHO COUNTY-- T27N R1E S28 29,32,33								agriculture forest practices mining hydrologic mod 16M 23H 53H 70H	EPA	X	
CB	W144	CRATER MEADOWS	CLEARWATER COUNTY-- T37N R9E S11								forest practices construction hydrologic mod 20H 31H 70H	EPA		X
CB	W145	AQUARIUS PRNA	CLEARWATER COUNTY	S/T	S/T	S/T	S/T	S/T	S/T		hydrologic mod 73H	EPA		X
CB	W146	ELK CREEK FALLS	CLEARWATER COUNTY			S/T	S/T	S/T	S/T		hydrologic mod 73H	EPA		X
CB	W147	PINCHOT MARSH	SHOSHONE COUNTY-- T43N R4E S28								agriculture hydrologic mod 18H 70H	EPA		X
CB	W148	DELANEY CREEK	SHOSHONE COUNTY-- T43N R4E S28								forest practices hydrologic mod 20H 70H	EPA	X	
CB	W149	FORTY NINE MEADOWS	SHOSHONE COUNTY								forest practices hydrologic mod 20M 70M	EPA		X
PB	W10	THREE PONDS PRNA	BOUNDARY COUNTY-- T61N R1W S14								forest practices hydrologic mod 20M 70M	EPA	X	

WETLANDS

BASIN	SEGMENT	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
PB	W11	SAND LK AND MEADOWS	BOUNDARY COUNTY-- T60N R1E S31								forest practices mining hydrologic mod	EPA		X
PB	W12	MOYE RIVER BASIN	BOUNDARY COUNTY								forest practices construction mining hydrologic mod	EPA		X
PB	W13	HERMAN LAKE	BOUNDARY COUNTY									EPA		X
PB	W14	CLARK FK DELTA MARSH	BONNER COUNTY AT LAKE PEND OREILLE	P							construction hydrologic mod	EPA		X
PB	W16	HOOODOO CREEK	BONNER COUNTY	P							16H 32H 70H	EPA		X
PB	W17	COOOLALLA CREEK	BONNER COUNTY								16H 32H 70H	EPA		X
PB	W18	UPPER PRIEST R PRNA	BONNER COUNTY-- T63N R5W									EPA		X
PB	W19	CARIBOU MARSH	BONNER COUNTY-- T63N R4W								20H	EPA	X	
PB	W20	PRIEST R MEANDERS	BONNER COUNTY-- T68N R4W S16								10H 76H, 72H	EPA		X
PB	W21	BAILEY BOG	BONNER COUNTY-- T62N R4W	P					P		30H 74H, 76H	EPA	X	
PB	W22	HAGER BOG	BONNER COUNTY-- T61N R5W	P					P		16M 32H 76H, 77H	EPA	X	
PB	W23	CHASE LAKE	BONNER COUNTY	P					P		30H 78L	EPA	X	
PB	W24	BOTTLE LAKE	BONNER COUNTY	P					P		20L	EPA	X	
PB	W25	KANK'SJ MARSH	BONNER COUNTY	P					P			EPA		X
PB	W26	POTHOLES PRNA	BONNER COUNTY	P					P		20H	EPA		X
PB	W28	LEE LAKE	BONNER COUNTY	P					P		10H 20H 30H	EPA		X
PB	W29	HUGHES MEADOW	BOUNDARY COUNTY-- T64N R5W S29.32								forest practices hydrologic mod	EPA		X

WETLANDS

BASIN	SEGMENT SEG #	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
PB	W30	TRAPPER CREEK	BONNER COUNTY								forest practices hydrologic mod	EPA		X
PB	W31	ARMSTRONG MEADOWS	BONNER COUNTY-- T62N R4W S6								forest practices hydrologic mod	EPA		X
PB	W32	BISMARCK MEADOWS	BONNER COUNTY--NORTH OF PRIEST LK RS								agriculture forest practices hydrologic mod	EPA		X
PB	W33	REEDER LAKE	BONNER COUNTY-- T61N R6W S10								forest practices hydrologic mod	EPA		X
PB	W34	BATH CREEK GORGE	BONNER COUNTY-- T6N R6W S8								forest practices hydrologic mod	EPA		X
PB	W35	SCION KOP PRIMA	SHOSHONE CO., UPPER COEUR D'ALENE R								agriculture forest practices hydrologic mod	EPA		X
PB	W37	BEAUTY BAR	WOLF LODGE BAY-- T49N R2W			P					mining	EPA		X
PB	W38	CATALDO FLATS	KOOTENAI/SHOSHONE COUNTIES-- T49N R1E			P						WPA		X
PB	W39	KOOTENAI WETLANDS	BOUNDARY COUNTY NEXT TO KOOTENAI NWR			S/T						EPA		X
PB	W40	ST JOE R LEVEE DELTA	BENNEWAH CO. ON COEUR D'ALENE LK			S/T					agriculture construction hydrologic mod	EPA		X
PB	W41	SR MARIES/ST JOE R	BENNEWAH CO.-- T46N R2W			P					agriculture construction hydrologic mod	EPA		X
PB	W42	CLEAR CREEK	SHOSHONE COUNTY-- T46N R6E S11,14								forest practices hydrologic mod	EPA		X
PB	W44	FERNAN & HAUSER LKS	KOOTENAI COUNTY								construction hydrologic mod	EPA		X
PB	W8	UPPER SMITH CR	BOUNDARY COUNTY								forest practices mining hydrologic mod	EPA	X	
PB	W9	BOG CREEK	BOUNDARY COUNTY-- T65N R4W S 8,9								forest practices hydrologic mod	EPA		X
SB	W	THE PINES	CUSTER COUNTY-- T13N R23E S30								agriculture hydrologic mod	EPA		X

WETLANDS

BASIN	SEGMENT	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT REGR.	SECOND CONTACT REGR.	SOURCES	SUBMITTED BY	MONIT	EVAL
SB	W119	BEAR CR FALLS PRNA	ADAMS COUNTY								16H 73H agriculture hydrologic mod	EPA		X
SB	W124	HELLS CANYON-SNAKE R	ADAMS/IDAHO COUNTIES								15H 73H agriculture hydrologic mod	EPA		X
SB	W125	L GRANITE CR PRNA	ADAMS/IDAHO COUNTIES								16H 20H 53H 70H agriculture forest practices mining hydrologic mod	EPA	X	
SB	W126	STANLEY BASIN SNRA	CUSTER COUNTY		P						20H 50H 70H forest practices mining hydrologic mod	EPA	X	
SB	W127	PINYON BASIN	CUSTER COUNTY			S/T				S/T	16M 20H 31H 50H 70H agriculture forest practices construction mining hydrologic mod	EPA		X
SB	W128	SALMON R, E FK BASIN	CUSTER COUNTY					P	P	P	16H 20H 53M agriculture forest practices mining	EPA	X	
SB	W129	SALMON R, E FK BENCH	PRNA, CUSTER COUNTY								16H 20H 53H agriculture forest practices mining	EPA	X	
SB	W130	LAKE CREEK PRNA	CUSTER COUNTY								74H hydrologic mod	EPA	X	
SB	W131	FORMATION SPRING CR	CARIBOU COUNTY-- T8S R41E								15L 20H 70M agriculture forest practices hydrologic mod	EPA	X	
SB	W133	TRAIL CREEK PRNA	LEMHI COUNTY								20H 70H forest practices hydrologic mod	EPA		X
SB	W136	MARSHALL LAKE	IDAHO COUNTY-- T24N R5E S31								16H 20H 70H agriculture forest practices hydrologic mod	EPA		X
SB	W138	BACK CREEK PRNA	VALLEY CO.-- T14N R6E S26,27,28,33,34								16H 20H 70H agriculture forest practices hydrologic mod	EPA	X	
SB	W139	LUCILLE CAVES SPRING	IDAHO COUNTY-- T2S R1E S11								15L agriculture	EPA		X
SWB	W100	CJ STRIKE WMA	ELMORE/OWYHEE COUNTIES								10H 70H agriculture hydrologic mod	EPA		X
SWB	W101	LITTLE JACKS CR PRNA	OWYHEE COUNTY								15H 70H agriculture hydrologic mod	EPA	X	

WETLANDS

BASIN	SEGMENT SEG #	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
				P	P	P	P	P	P	P		EPA		
SWB	W103	DUCK VALLEY RESERVA	OWYHEE COUNTY								agriculture 10H	EPA		X
SWB	W104	THE TULE	OWYHEE COUNTY								agriculture 16H	EPA		X
SWB	W105	BKG SPRINGS RANCH	RANCHO IDAHO, OWYHEE COUNTY								agriculture 16H	EPA		X
SWB	W106	BOISE R. N FK	BOISE/ELMORE COUNTIES- T2N R7E S16								agriculture 10H forest practices 20H mining 63H hydrologic mod 70H	EPA		X
SWB	W107	LITTLE CAMAS RES	ELMORE COUNTY								hydrologic mod 70M	EPA		X
SWB	W110	BOISE R. S FK	ELMORE COUNTY- SMOCKEY BAR-AREA								agriculture 16H forest practices 20H construction 32H	EPA		X
SWB	W111	RASPBERRY GULCH PRVA	ELMORE COUNTY- T2N R7E S30								forest practices 20H hydrologic mod 70H	EPA	X	
SWB	W112	BARBER POOL, BOISE R	ADA COUNTY	P							agriculture 16H construction 30H hydrologic mod 73H	EPA	X	
SWB	W113	BOISE RIVER	ADA COUNTY- UPSTREAM OF BOISE								agriculture 10H construction 32H hydrologic mod 70H	EPA		X
SWB	W114	HUBBARD RES	ADA COUNTY								agriculture 10H hydrologic mod 70H	EPA		X
SWB	W115	ROSEWELL MARSH	CANYON COUNTY								agriculture 10H hydrologic mod 70H	EPA		X
SWB	W116	BOISE RIVER	ADACANYON CO.- LUCKY PEAK-MOUTH								agriculture 10H construction 30H hydrologic mod 70H	EPA		X
SWB	W117	LAKE LOWELL	CANYON COUNTY								agriculture 16H hydrologic mod 70H	EPA		X
SWB	W118	PAYETTE R SLOUGHS	GEM/PAYETTE COUNTIES								agriculture 16H hydrologic mod 70H	EPA		X
SWB	W123	PAYETTE RIVER	GEM COUNTY NEAR BLACK CANYON RES								agriculture 16H construction 32H hydrologic mod 70H	EPA		X
USB	W106	TARGE CREEK PRVA	FREMONT COUNTY									EPA		X

WETLANDS

BASIN	SEGMENT SEG #	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPANW.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
USB	W120	SAND CREEK	FREMONT COUNTY								15H 15H 32H 70H agriculture construction hydrologic mod	EPA		X
USB	W121	WILLOW CREEK	CAMAS COUNTY								16H 32H 70H agriculture construction hydrologic mod	EPA		X
USB	W122	CAMAS CRHILL CITY	CAMAS/ELMORE COUNTIES								10H 70H agriculture hydrologic mod	EPA		X
USB	W45	SNAKE R. S FK	BONNEVILLE/JEFFERSON COUNTY	S/T					S/T		10H 30H 70H agriculture construction hydrologic mod	EPA		X
USB	W46	SNAKE R,S FK ISLANDS	BONNEVILLE/JEFFERSON CO-3 RNA&LACEC	S/T					S/T		10H 30H 70H agriculture construction hydrologic mod	EPA	X	
USB	W47	HAYS PROPERTY	BONNEVILLE COUNTY	S/T					S/T		10H 30H 70H agriculture construction hydrologic mod	EPA		X
USB	W48	FALLS PICNIC AREA	BONNEVILLE COUNTY	S/T					S/T		76M, 77M hydrologic mod	EPA		X
USB	W49	CONANT VALLEY	BONNEVILLE COUNTY								16H 70H agriculture hydrologic mod	EPA		X
USB	W51	HENRYS FORK	JEFFERSON/MADISON/FREMONT COUNTIES	P					P	P	10H 30H 66H 70H agriculture construction land disposal hydrologic mod	EPA		X
USB	W52	HENRYS FORK OUTLET	FREMONT COUNTY-- T14N R44E	P					P	P	10H 76H, 77H agriculture hydrologic mod	EPA		X
USB	W53	HENRYS LAKE	FREMONT COUNTY-- T16N R43E	P					P	P	16H 32H 76H, 77H agriculture construction hydrologic mod	EPA		X
USB	W54	ISLAND PARK RES	WEST SLOPE, FREMONT CO.-- T13N R33E	P					P	P	16H 32H 65H 76H, 77H agriculture construction land disposal hydrologic mod	EPA		X
USB	W55	BIG SPRINGS	FREMONT COUNTY-- T14N R44E								16H 73H agriculture hydrologic mod	EPA		X
USB	W56	SHEEP FALLS PRINA	FREMONT COUNTY								16H 73H agriculture hydrologic mod	EPA		X

WETLANDS

BASIN	SEGMENT	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
USB	W57	UPPER/LOWER MESA FAL	FREMONT COUNTY								hydrologic mod	EPA		X
USB	W58	THURMAN CREEK/PINA	FREMONT COUNTY								agriculture	EPA	X	
USB	W60	HARRIMAN STATE PARK	FREMONT COUNTY								agriculture	EPA		X
USB	W61	ROBINSON CR DRAINAGE	FREMONT COUNTY								forest practices hydrologic mod	EPA		X
USB	W62	SHERIDAN CREEK	CLARK COUNTY								agriculture construction hydrologic mod	EPA		X
USB	W63	BUFFALO RIVER	FREMONT COUNTY								agriculture construction hydrologic mod	EPA		X
USB	W64	SAND CREEK DRAINAGE	FREMONT COUNTY								agriculture construction hydrologic mod	EPA		X
USB	W65	TETON RIVER VALLEY	TETON COUNTY	P							agriculture construction hydrologic mod	EPA		X
USB	W66	GREYS LAKE NWR	BONNEVILLE COUNTY	P							agriculture hydrologic mod	EPA	X	
USB	W67	AMERICAN FALLS RES	BINGHAM/POWER/BANNOCK COUNTIES								agriculture construction hydrologic mod	EPA		X
USB	W68	FORT HALL RESERVATIO	BINGHAM/BONNEVILLE/POWER/BANNOCK CO.			S/T			S/T	S/T	agriculture construction mining hydrologic mod	EPA		X
USB	W69	BANNOCK CREEK	POWER COUNTY, FORT HALL RESERVATION								agriculture construction hydrologic mod	EPA		X
USB	W70	BLACKFOOT RES	CARIBOU COUNTY								agriculture hydrologic mod	EPA		X
USB	W71	CAMAS NWR	JEFFERSON COUNTY								agriculture	EPA		X
USB	W72	MARKET LAKE WMA	JEFFERSON COUNTY-- TSN R37E								agriculture	EPA	X	
USB	W73	PORTNEUF RIVER BASIN	CARIBOU/BANNOCK COUNTIES	P	P	P	P	P	N	P	agriculture	EPA		X

WETLANDS

BASIN	SEGMENT SEG #	NAME	BOUNDARIES	DOM. WATER SUPPLY	AG. WATER SUPPLY	COLD WATER BIOTA	WARM WATER BIOTA	SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SOURCES	SUBMITTED BY	MONIT	EVAL
USB	W74	MARSH CREEK	BANNOCK COUNTY (N/KON TO DOWNEY)								30H 70H construction hydrologic mod	EPA		X
USB	W75	MINIDOKA NWR	POWER/CASSIA COUNTIES	P					P		10H 32H 70H agriculture construction mining	EPA		X
USB	W77	RAFT RIVER VALLEY	CASSIA COUNTY	P	P				P		10H 32H 70H agriculture construction hydrologic mod	EPA		X
USB	W78	MILNER REACH	JEROME/TWIN FALLS COUNTIES-T10S R21E	P		N			S/T	S/T	10H 73H agriculture hydrologic mod	EPA	X	
USB	W79	BOX CANYON-BLUEHEART	TWIN FALLS COUNTY-T10S R16W	S/T					S/T	S/T	17H 30H 73H agriculture construction hydrologic mod	EPA	X	
USB	W80	VINYARD CREEK/CANYON	JEROME COUNTY-T10S R16E S3	S/T					S/T	S/T	10H agriculture	EPA	X	
USB	W81	DEVILS CORRAL	TWIN FALLS COUNTY	P					P	P	10H agriculture	EPA		X
USB	W82	THOUSAND SPRINGS	BITTER RANCH, GOODING COUNTY								10H 74H agriculture hydrologic mod	EPA	X	
USB	W83	SPRINGS CREEK	GOODING COUNTY								10H 74H agriculture hydrologic mod	EPA		X
USB	W84	DIKE-WILEY RANCH	GOODING COUNTY-T6S R13E	P					P	S/T	16H 73H agriculture hydrologic mod	EPA	X	
USB	W85	STAR FALLS	JEROME/TWIN FALLS COUNTIES	P					P	S/T	15H 73H agriculture hydrologic mod	EPA		X
USB	W86	AUGER FALLS	JEROME/TWIN FALLS COUNTIES	P					P	S/T	16H 73H agriculture hydrologic mod	EPA		X
USB	W87	SALMON FALLS CREEK	TWIN FALLS COUNTY								16H 73H agriculture hydrologic mod	EPA		X
USB	W88	SHOSHONE CREEK	TWIN FALLS COUNTY								10H 70H agriculture hydrologic mod	EPA		X
USB	W89	CAMAS CREEK MEADOWS	CLARK COUNTY								10H 80H 70H agriculture mining hydrologic mod	EPA		X

WETLANDS

BASIN	SEGMENT SEG #	NAME	BOUNDARIES	DOM. AG.		COLD WATER		WARM WATER		SALM. SPAWN.	PRIM. CONTACT RECR.	SECOND CONTACT RECR.	SUBMITTED BY	MONIT	EVAL
				WATER SUPPLY	WATER SUPPLY	WATER BIOTA	WATER BIOTA	WATER BIOTA	WATER BIOTA						
US8	W90	MEDICINE LODGE VALLE	CLARK COUNTY										EPA		X
US8	W91	MUD LAKE WMP	JEFFERSON COUNTY-- T6N R35E										EPA	X	
US8	W92	BIRCH CREEK	JEFFERSON COUNTY										EPA		X
US8	W93	SUMMIT CREEK PRVA	CUSTER COUNTY										EPA	X	
US8	W94	LITTLE LOST R BASIN	BUTTE COUNTY										EPA		X
US8	W95	BIG LOST RIVER BASIN	CUSTER/BUTTE COUNTIES										EPA		X
US8	W96	THOUSAND SPRINGS CR	PNRA, CUSTER CO., UPPER BIG LOST R										EPA		X
US8	W97	MALAD GORGE	TWIN FALLS COUNTY										EPA		X
US8	W99	SILVER CREEK	BLAINE COUNTY										EPA	X	

SOURCES

10H
70H
16H
70H
70H
16M
70H
10H
70H
10H
31H
83H
70H
10H
31H
83H
70H
16M
32L
73H
16L
70L

agriculture hydrologic mod
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agriculture construction mining hydrologic mod
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